ART REEVES

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VOL. I NO. 1

THE INTERNATIONAL PHOTOGRAPHER

ART REEVES
MOTION PICTURE EQUIPMENT
7512 SANTA MONICA BLVD.
HOLLYWOOD, CALIF. U.S.A.



FEBRUARY
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Hollywood, California

THE International Photographer

OFFICIAL INTER-LOCAL BULLETIN OF THE INTERNATIONAL PHOTOGRAPHERS OF THE MOTION PICTURE INDUSTRIES, LOCAL NO. 659 OF THE INTERNATIONAL ALLIANCE OF THEATRICAL STAGE EMPLOYEES AND MOVING PICTURE MACHINE OPERATORS OF THE UNITED STATES AND CANADA.

AFFILIATED WITH
LOS ANGELES AMUSEMENT FEDERATION, CALIFORNIA STATE THEATRICAL FEDERATION, CALIFORNIA STATE FEDERATION OF LABOR, AMERICAN FEDERATION OF LABOR.

3 4

Vol. 1 HOLLYWOOD, CALIFORNIA FEBRUARY, 1929 No. 1

"Capital is the fruit of labor, and could not exist if labor had not first existed. Labor, therefore, deserves much the higher consideration."—Abraham Lincoln

Studio Agreement

Briefly, the basic Studio agreement entered into by and between the Unions and certain Moving Picture Producing Companies in November, 1926, and extended November, 1928, for an additional period of three years, provides for the establishment of a Board of Arbitration, composed of five representatives of each of the parties, which shall hear and determine questions arising between the Unions and Producers.

The Unions referred to in this agreement are:

1. The I. A. T. S. E. & M. P. M. O.
2. The International Brotherhood of Painters, Decorators and Paperhangers of America.
3. United Brotherhood of Carpenters and Joiners of America.
4. International Brotherhood of Electrical Workers.
5. American Federation of Musicians.

Local No. 659 is an integral part of the I. A. T. S. E. & M. P. M. O. and cannot by any stretch of the imagination be separated from the parent body. This Local is as much a part of the contract here referred to as is any Union therein specifically referred to. The obligations imposed upon the I. A. T. S. E. & M. P. M. O. by this document are imposed upon the International Photographers, and likewise the benefits conferred thereby accrue to Local No. 659. It has the legal effect of making us as much a part of the contract as though it were signed by the elected officers of this Local.

The Rules of Procedure adopted by the above referred to committees

(Continued on Page 4)

The INTERNATIONAL PHOTOGRAPHER, while primarily the house organ of Local No. 659, enjoys the distinction of being placed monthly in the hands of 1,000 photographic workers of the Motion Picture Industry.

The members of this Local, together with those of our sister Locals, No. 644 of New York City and No. 666 of Chicago, represent the entire personnel of photographers now engaged in professional production of motion pictures in the United States. This condition renders the INTERNATIONAL PHOTOGRAPHER a voice of an ENTIRE CRAFT covering a field that reaches from coast to coast across the nation.

Available

Attention is again called to the "Out of Work Book" maintained in the office of Local No. 659.

When out of work come to the office and sign the book. Your name is then called for the first position available in the order of the date of your application.

However, after signing the book, should you accept work without help from the Local office you must call in, cancelling your name immediately, so the Business Representative at all times knows just who is available.

The "Work Book" is arranged in classifications from first cameramen to assistant cameramen. It represents the finest employment agency ever available to cameramen of the Motion Picture Industry.

Radical Demands

This is the caption of Section 1, Article 4, on the subject of STRIKES AND LOCKOUTS, in the By-Laws of the International Alliance.

It would be well for those few members of Local No. 659 who are urging drastic methods to bring about an adjustment of present conditions to study this particular paragraph.

It would be well for those members, who have sincerely at heart the furtherance of a just and equitable settlement of the differences between the cameramen and their employers to report to the local office the names of those members who are agitating and urging the adoption of "red" methods in the establishment of better conditions.

There is only one initial method of procedure in the settlement of the differences which may now exist between cameramen and employer, viz., through the channel already established by the International Alliance, as described elsewhere in this issue. The great machine of the "I. A." has been in operation for many years and its methods are JUST, FIRM and EFFECTIVE. We know that its policies are acceptable to the great majority of the members of Local No. 659.

This Local has submitted its problems to our International President. These problems have been supported with written arguments to be augmented by oral arguments upon the arrival of the Local's committee and our International Representative in New York. We have been assured that President Canavan will use every means to effect this meeting the first part of February.

OFFICIAL MONTHLY BULLETIN

OF LOCAL NO. 659
I. A. T. S. E. & M. P. M. O.
of the United States and Canada

Office: 428 Markham Building, 6372 Hollywood Boulevard. Telephone HEmpstead 1128

The Sound Track

Just as our cover design, representing a strip of sound film, is emblematic of this magazine being henceforth the voice of the cameramen; so this column will in the future voice the pulse of the organization in that it presents at a glance vital official news of Local No. 659.

General Meeting

The next open meeting of Local No. 659 will be held on Thursday, February 7, at 8 p. m., in the Hollywood Chamber of Commerce building, 6520 Sunset boulevard. The Financial Secretary will be on duty at 7 p. m. sharp.

New Local

Brother C. A. Luperti has just written us that a charter has been issued to the Motion Picture Cameramen of Chicago. They are now known as Local No. 666. Success!

Membership

There is now a total of 742 members in good standing in Local No. 659. This comprises all motion picture photographers engaged in professional production west of the Mississippi river.

Change of Address

Notify the Local office immediately of any change in your address or telephone number.

Lost Due Books

John Weiler—Card No. 35844.
Sol Polito—Card No. 35750.
Clifton Kling—Card No. 35878.
Harvey Gould—Card No. 36338.

Notary

A notary public is now available in the offices of the International Photographers, 428 Markham Building.

Subscribe to the Los Angeles Citizen. Labor's official newspaper.

Federation Report

In the report of the California State Theatrical Federation for January, Brother Anthony Noriega says in part:

"The cameramen of Hollywood advise a 100 per cent organization west of the Mississippi. They are to be congratulated for their quick and successful campaign of organization."

He also calls attention to all locals that the time is short in which to present bills to the State Legislature. He says:

"The time for the introduction of Legislative matters at the State Legislature is at hand, therefore it behooves locals who may have bills to present to forward same at once, with any data at hand to strengthen your proposition. Our State Executive Committee has selected the writer to represent our Federation during the coming sessions of the Legislature. Send in your propositions at once."

Agreement Between Locals No. 644 and No. 659

The Executive Boards of Locals 659 and 644 have signed the following contract, which embodies the principle of home rule and jurisdictional rights.

This Agreement entered into between Local No. 644, International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators of the United States and Canada, of the City of New York, State of New York, and Local No. 659, International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators of the United States and Canada, of the City of Los Angeles, State of California.

WITNESSETH:

"That It Is Mutually Agreed that the first cameraman and his assistant shall have the absolute right of entering a foreign jurisdiction to photograph location and studio scenes on a production originating in the domestic jurisdiction.

That the jurisdictional boundaries of the aforesaid Locals shall be as follows: The jurisdiction of Local No. 644 shall extend from the Atlantic coast line to the Mississippi river, in the United States and into the Dominion of Canada, as shown on the map which is hereto attached and made a part of this *Agreement*.

The jurisdiction of Local No. 659 shall extend from the Pacific coast line to the boundary lines established between Idaho and Montana, Idaho and Wyoming, Utah and Wyoming, Utah and Colorado, and Arizona and New Mexico, in the United and into the Dominion of Canada, as shown on the aforementioned map.

The territory in the United States and in Canada, between the aforementioned jurisdictional boundaries, is a neutral zone into which a complete photographic staff from either jurisdiction may operate under the Local's Constitution and By-Laws of the jurisdiction in which said production originated.

Should a producing unit be desirous of carrying into a foreign jurisdiction a cameraman or cameramen, other than the first cameraman from the domestic jurisdiction, said cameraman or cameramen shall first obtain permission from the Local of said foreign jurisdiction before entering same.

That the photographic staff, as defined by the respective Constitution and By-Laws of the foreign Local, as of present date, shall be completed by photographers supplied from the home local of the said foreign jurisdiction.

That for the purpose of receiving the applications of incoming, or prospective, members of the United States shall be divided by the line 100 degrees West Longitude; Local No. 659 holding jurisdiction West of the line and Local No. 644 receiving applications of applicants residing East of the line.

In the event of vacancies in either jurisdiction where the Local is unable to furnish the men required, they shall call upon each other's Local for men to fill same.

This *Agreement* shall not expire unless mutually agreed upon by both aforesaid parties.

Employment Notice

It behooves every member to see that business managers and assistant directors of producing companies are informed of the fact that the office of Local No. 659 maintains its own employment bureau.

Business managers desirous of employing cameramen, still photographers or assistant cameramen, can save time and be certain of results by calling the business office, HEmpstead 1128, where a classified list of available camera workers is maintained.

Brother Paul Perry reports working on sound production at United Artists studio.

'Daddy' Dale Goes to Texas

"Daddy" Dale, well known to members of Local No. 659, left last week for Texas where he will arrange for an organization campaign that is to be launched in the Mid-Continental oil fields.

Most of the workers there are understood to be working ten and twelve hours per day, with no inclination upon the part of the companies to give a reduction, or bring the pay up commensurate with such ungodly hours of toil.

The thousands of friends, in and out of the Labor movement, wish "Daddy" Dale all possible success and hope for him one of the most successful of labor revival meetings, and a thorough spreading of the gospel. Trade unionism will be glad to welcome him back when President Green and the Oil Workers are ready to let him come home.

———o———

Vest Pocket Movies

Brother Andre Barlatier dropped into the office the other day and showed us an ingenious little device he now has on the market called the "Filmoscope." It is designed for viewing stereoscopic photographs printed on three-foot strips of film. These strips of pictures Andre has aptly dubbed Filomgrams.

"This is not a moving picture," Andre explained, "although it is made on movie film."

The device, which is so compact that it readily slips into the vest pocket, permits 24 stereoscopic pairs of views on each "Filmogram." Those Andre has prepared are of famous movie stars actually at work on various productions in the different studios. The pictures may be changed in rapid succession by a clever drop-pin device. It shows pictures in all the roundness and vitality obtained by the illusion of the third dimension.

Brother Barlatier is now photographing a new series of interesting subjects which will be added to his rapidly increasing library available for purchasers of "Filmoscopes."

The device is an inexpensive novelty and the additional "Filmograms" may be obtained at a nominal charge.

———o———

Brother Victor Milner is photographing the sound production "Wild Party," with Clara Bow as the star. Dorothy Arzner is directing.

TREMONT
FILM
LABORATORIES
CORPORATION

823-829 SEWARD STREET
Hollywood California

Line Up With MGM Lamps and Go Ahead

MOLE-RICHARDSON, Inc.
STUDIO LIGHTING EQUIPMENT
941 N. SYCAMORE AVENUE HOLLYWOOD, CALIF.

Vitacolor An Achievement

About twenty-five of us went over to Brother Max DuPont's Vitacolor studio several evenings ago to see what this new color process really looked like.

To say that we were pleasantly surprised would be a mild statement. We were astounded. These Vitacolor films are certainly more than moving pictures; they are the nearest approach to life possible to be thrown upon the screen.

Max showed us some close-ups so real that we forgot momentarily they were pictures. Vitacolor actors actually appear to live and breathe, but they do not have to talk to do so. Just color; a color so pure and so beautifully blended that every sensation of life comes as if by magic to the screen.

"So easy too," to quote Max DuPont. Either the standard 35 mm. or the 16 mm. camera may be used. To the camera is attached the special Vitacolor filter holder. The film then is exposed in the usual manner. Any standard panchromatic film may be used.

The resultant print is black and white and appears similar to ordinary prints. The color appears when the film is projected through a filter attachment carrying filters complimentary to those used on the camera.

One of the outstanding impressions we receive is sharpness of focus. Mr. DuPont has made a noteworthy aquarium study of variously colored goldfish, in which the scintilating scales of the tiny swimmers demonstrate the extreme sharpness of focus obtain able with Vitacolor.

The pictures have abundant roundness, bordering on the stereoscopic in fact. This fact coupled with sharpness of focus demonstrates the immediate value of this wonderful process for scientific, educational and scenic subjects.

———o———

Dubray to Chicago

Brother Joseph Dubray has left the camera field to take over duties with the Technical Research Department of the Bell and Howell Camera Company of Chicago.

———o———

"Hey, Harry," called the assistant to his cameraman atop a twenty-five foot parallel; "don't come down that ladder on the other side. I took it away."

Officers of Local No. 37 Elected

Studio Local No. 37 recently elected their new staff of officers at their headquarters, 8111 Santa Monica boulevard.

Local No. 37 is composed of Lamp Operators, Grips and Property Men.

Steve Newman who has served as Business Representative of Local No. 37 for the past several years, declined to allow his name to be presented for re-election, having decided that he would retire. Steve's place is now filled by Lew Blix.

Following is a complete list of new officers of Local No. 37:

President—W. B. Jett.

Vice-President—John Neff.

Financial Secretary-Treasurer—Ray Norris.

Business Representative—Lew C. G. Blix.

Sergeant-at-Arms — H. H. Graham.

Delegates to Central Labor Council—Lew C. G. Blix, Kenneth Coffey, Carl J. Kountz.

Executive Board—Jack Burke, Ed (Tex.) Cox, Dan Farmer, Frank M. Flanagan, Tom Kelly, John Lavin, D. J. Lilly.

Trustees—Ray Duckwitz, Harry Hodgins, Dan Kelleher, Jesse Moulin, Ray Simbro.

Examining Board—Jack Donahoe, George Taylor, Cliff Whitzel, Charles Wirth and Ted Wuertenberg.

———o———

Operators Elect

The annual election of Moving Picture Projectionists No. 150 is past history now. There was a heavy vote at their headquarters, 1489 West Washington street, polls being open from 10 a. m. to 10 p. m., so that all those employed on the various shifts could have the opportunity of indicating their choice.

Following are the new officers:

President—C. C. Harden.

Vice-President—Sidney Burton.

Business Manager—T. E. Eckerson.

Secretary-Treasurer—R. L. MacDonald.

Board of Trustees—G. Slipper, A. L. Feinstein, G. W. Page.

Executive Board—M. J. Sands, E. W. Anderson, J. B. Kenton, Al. Pullen, Robert McConahey.

Examining Board—W. R. Hermance, Don Williams, Louis Moelle.

Sergeant-at-Arms—Clyde Babcock.

Guide—David Levitte.

Board of Inspectors—O. F. Stowe, Ray Slagel, Chick Fowler.

New Mitchell Factory

The Mitchell Camera Company broke ground last week for their new $60,000 factory located at Robertson and Santa Monica boulevard, West Hollywood.

The building will be of the "daylight factory" type its walls being chiefly of glass and steel. It will provide 26,000 square feet of floor space.

Nearly one hundred men will be employed by the Mitchell Company when they move into new quarters.

Studio Agreement

(Continued from Page 1)

provide that each party selcet a Secretary to act as agent in the settlement of disputes which fail of local adjustment. Frank Carothers was selected by the International Unions to act as Secretary. A. L. Berres was chosen by the Producers' Committee.

Matters of a serious nature may perhaps find their way to the higher tribunal while most disputes will unquestionably be disposed of by Local officers or by the Secretaries established under the agreement.

To Local No. 659 the first above referred to committee constitutes the Court of Appeal to which we turn for relief after other measures fail.

The terms of the Agreement provide a Method of Procedure whereby all wages, scales and conditions being of a serious nature, are to be determined by the Producers' Committee and the Internationals' Committee and not by local adjustment. In consequence, our present needs for an equitable adjustment of conditions will necessarily be referred to those Committees. In fact, have already been so referred with every possibility of a hearing at an early date in New York City.

President Canavan, who is chairman of the Internationals' Committee, is naturally deeply concerned in the conditions of the Los Angeles studios, but having six hundred sixty-five sister locals, as well as Local No. 659, whose interest he must conserve, we must subserve our own affairs to the opportune time that he, our International President, may be able to bring about the adjustments so earnestly desired.

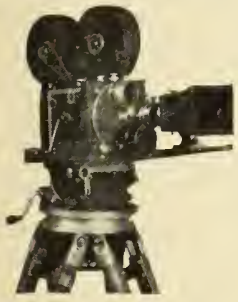
A complete copy of the Articles of Agreement here referred to may be found on page 35 of the Proceedings of the 1928 "I. A." convention in Detroit.



The Akeley Gyro Tripod may be had with either studio legs or news and outdoor legs.

Weight of tripod with studio legs—30 lbs.
Weight of tripod with news legs—24 lbs.







The three views above show Bell and Howell, Mitchell, and De Brie Cameras mounted on the Akeley Gyro Tripod. A very clear idea may be gained from these shots of the maximum upward and downward tilt given to the camera by this Tripod.

The NEW Universal Gyro Tripod

NOW gives you . . . greater speed, flexibility, and precision with ANY make of camera

REALIZING that the principles of the Akeley Gyro mechanism, as embodied in the Akeley Camera, have contributed greatly to the mechanical success of motion pictures, we have placed on the market a tripod in which is contained an improved gyro mechanism adaptable to *any* make of motion picture camera. This Gyro mechanism now gives to any camera advantages until now exclusive with the Akeley Camera.

The new tripod adds to all cameras the flexibility of the Akeley pan and tilt mechanism eliminating the use of crank handles and friction devices which Mr. Akeley found to be unsatisfactory in properly photographing follow shots. There are three different speeds or resistances in the pan, any of which may be selected by the operator. To insure ease of action the Akeley mechanism is entirely ball bearing.

Altogether the Akeley Gyro Mechanism provides for the motion picture photographer a more convenient, a quicker and a more profitable method of taking news or studio pictures. It makes the unusual picture an every-day occurrence, the heretofore impossible shot a simple matter.

Write for our catalogue describing the Akeley Gyro Tripod in full and details of our time payment plan.

AKELEY CAMERA INC.

The Akeley Universal Gyro Tripod

175 Varick Street **New York City**

Studio Electricians Hold Election

Local No. 40, Studio Electricians, have just held this year's election with the following results:

President—H. D. Martin.

Vice-President—Al Cameron.

Recording Secretary — G. P. Murphy.

First Inspector—R. Hoste.

Second Inspector—George Hansing.

Foreman—L. H. Preston.

Treasurer—Paul Wolfe.

Financial Secretary and Business Representative—G. F. Reid.

Trustees—R. F. Murray, Murray Franklin.

Press Secretary—Maurice Walters.

Executive Board—H. D. Martin, E. W. Parsons, G. P. Murphy, Paul Wolfe, Murray Franklin, D. C. Hobbs, R. F. Murray.

Legal Advice

In addition to his numerous duties and responsibilities as Business Representative of Local No. 659, Brother Howard E. Hurd, is now associated with an attorney of Hollywood who has practiced law many years, and who has spent six years on the Bench.

King Charney says . . .

Whether it be carbon or incandescent lighting

Whether it be talkies or silent

Insist upon Agfa *Negative*

For definite results

AGFA RAW FILM CORPORATION

ALFRED WEISS, *Pres.*

NEW YORK HOLLYWOOD

Equity Ball

Announcement has just been made that Maurice Chevalier, foremost Parisian stage and screen star, has consented to appear as a guest artist in the brilliant program of all-star entertainment planned for the first annual Actors' Equity Ball to be staged on the Pacific Coast, scheduled, for the night of January 31 at the Biltmore.

Another addition to the stellar aggregation to take part in the cabaret program just announced is Julian Eltinge, famous female impersonator. The program is by no means complete, according to Miss Margaret Smith of New York City, who is director general of the affair.

Others billed for the lavish bill of notable stage folk include Pat Rooney, Marion Bent and Pat III, in one of their famous acts, Sophie Tucker, Ray Dooley, Eddie Dowling, Ruby Keeler and others.

The Los Angeles Equity frolic and cabaret program is open only to members of the association, according to Miss Smith, who has been identified with the New York affairs for many years, and many stars have already made arrangements for parties to attend. The ball committees, including the foremost stage and picture folk, have established headquarters at 6513 Hollywood boulevard, where tickets are available.

Union Made Magazines

Members wishing to subscribe to magazines or periodicals may do so through Brother Maurice Hall, telephone GLadstone 4203 or HEmpstead 1128. Brother Hall carries a complete line of Union made magazines.

Demand the Label

The Union Label is a bid for friendship. It carries no sting of malice. It says to the friend of Unionism, "Here is a fair product, deserving of your patronage." Its mission is wholly constructive, thoroughly progressive. No red fire or excitement mark its progress, but it holds its gains and makes new ones every day.

—*Los Angeles Citizen.*

"There was never a right endeavor but it succeeded. Patience and patience, and we shall win at last . . . Never mind the ridicule, never mind the defeat! Up again, old heart, there is victory yet for all Justice."—*Emerson.*

Shorter Week

The California State Harbor Board, with headquarters at San Francisco, and of which Secretary Paul Scharrenberg of the State Federation of Labor is a member, has established the five-day work week for all its employes, starting with the first of January. The Commission reports that by the new arrangement more work is accomplished than under the five and a half day week that formerly prevailed. There has been no reduction in pay under the new deal. —*Los Angeles Citizen.*

Photography and Sound

There has been a lot of criticism of late in various trade papers to the effect that the sound picture gained a voice only to lose in the quality of photography.

Brother Arthur Edeson in his picture "Old Arizona" for the Fox Film Corporation, not only proves that a picture can be beautifully photographed as well as embodying excellent sound reproduction, but has gone so far as to successfully carry this technique into difficult locations in the open air.

Brother Ray Binger, assisted by Brother Jimmy Harper, together with Brother Irving Ries, assisted by Brother William Foxall, are this week completing specialty shots for "The Mysterious Island," the underwater picture directed by Lucien Hubbard.

Gus Edward's "Review" was begun last Friday on sound stage "B" at M-G-M. The picture is to be photographed in Technicolor by Ray Rennahan, assisted by Arthur Pierson with general lighting effects by John Arnold. Charles Pollock will, of course, make the stills.

A great constructive genius once declared: "I criticise by construction, not by finding fault." Good doctrine, that! Who is he who points out, with caustic sneer, how the doer of deeds has stumbled? Most frequently it is the man who has failed.—*Scottish Rite News.*

Associated with Brother Victor Milner on the current Clara Bow production, "A Wild Party," are Brothers Archie Stout, Rex Wimpy, Cliff Blackstone, assisted by Brothers Al Myers, William Clothier, and Dan Fapp, with Emmet Schoenbaum on the still camera.

Location Notice

Attention is called to all members that they must notify the Local office before leaving town on location.

When calling in, give names of entire camera crew, place of location and time you expect to be gone.

This is important as it is one of the ways this office can co-operate with, and help the cameramen.

———o———

Demand the Label

A man who will not help others is not, himself, worthy of being helped. The Union man who neglects the Union Label is denying help to those from whom he requires help.

———o———

Have you called at the office recently for your mail? We have a number of unclaimed letters here addressed to members.

———o———

Flash! Flash! Flash!

To Editor of The International Photographer. Fast Wire.

Chas. P. Boyle gets call to go to work at the Pathe studio. Weather permitting call.

Second Flash. Hold. Rained today.

Kodak Note

Employes of the Eastman Kodak Company, numbering 20,000, entered December 20 into a new insurance and pension plan underwritten by the Metropolitan Insurance Company, whereby they get life and disability insurance and pensions, the costs of the premiums to be paid half by the Eastman Kodak Company and half by the employes.

———o———

Sleep on Pequot

The United Textile Workers of America wish every Union member and their family to buy and sleep on Pequot sheets and pillow cases. Why? Because it is the only 100 per cent Union made sheet in this country, and also because it is the oldest and best made.

All other sheets and pillow cases are non-Union made.

The American Federation of Labor in convention at Detroit, Los Angeles and New Orleans adopted resolutions urging Organized Labor to patronize Pequot sheets and pillow cases.

Five-Day Week

The Kodak Park plant of the Eastman Kodak, well remembered to war-time photographers, is to try the five-day working week as an experiment. If successful, the plan of operation will be extended to all points, affecting about 15,000 employes. There are 5,000 employes in the Kodak Park factory.

———o———

The Hollywood Daily News is showing real prosperity and has replaced the former newspaper press with a new one that is strictly up to date. This advance has been necessitated by the constantly growing circulation. They have also been making some advantageous improvements in the composing room in the way of rearranging the layout.

———o———

Near a Pole

Sherman—Wherever in the world you go, you'll find us Jews are the leading people.

Roal—How about Alaska?

Sherman—Vell, Iceberg ain't no Presbyterian name.—*Columbia Cauldron.*

Greetings and congratulations to the International Photographers, on this, the occasion of the first issue of their official organ.

□

ROY DAVIDGE FILM
LABORATORIES

Pans and Tilts

Brother Arthur Reeves has just completed several important improvements in film printers adapting them to the more efficient manipulation of sound films.

* * *

Just received a postcard from Brother Walter Scott of Local No. 644, who, with Brother Dan Clark of Local No. 659, is now in Tahiti, South Seas, making sound pictures for the Fox Film Company.

* * *

Brother Hugh McClung is supervising the laboratory work and getting out release prints of the new Douglas Fairbanks picture, "The Iron Mask," which was photographed by Brother Henry Sharp.

* * *

The filming of "The Bridge of San Luis Rey," at Metro-Goldwyn-Mayer studios is keeping Brother Merrit Gerstad busy at first camera, Tommy Tutwiler assisting. The old cry of "hold it for a still," comes from Brother Homer Van Pelt.

* * *

Henry Kruse of Technicolor has temporarily taken an agency for that new Chevrolet you have been reading about. Henry says the coach will make a dandy camera car.

* * *

Brother E. G. Ullamn is for the present representing the New York Life Insurance Company locally.

* * *

Brothers Fred Westerberg, Jack Noyes and Ralph Burdick are doing sound production for United Artists.

* * *

Brother Faxon Dean reports working on a sound production at First National.

* * *

Brother Arthur Grant is busy these days getting sound equipment ready for the many production schedules to start soon. He is being very ably assisted by Brothers Curlie Linden, Ralph Reynolds and Warner Cruze.

* * *

Brother Harry Fischbeck, Buddy Williams, Guy Bennett, Wm. Mellor, Loyal Griggs, Otto Pierce and Eddie Pyle are engaged in the photography of "The Woman Who Needed Killing," starring Baclanova, Neil Hamilton and Clive Brooks. Directed by Rowland Lee.

Brother Henry Gerrard is photographing "A Tale of the Alps," a silent production with Emil Jannings, Esther Ralston and Gary Cooper The other members of our Local working on this production are Harry Hallenberger, Buddy Williams, Eddie Adams, Fleet Southcott and Loyal Griggs.

* * *

Brother Al Gilks is making extensive tests in sound for his coming production at the Paramount studio.

* * *

"Close Harmony," an all talkie picture has just been completed by Brothers Roy Hunt, Guy Bennett, Harry Merland, Wm. Miller, Fred Meyer, Eddie Pyle and Otto Pierce with Jack Landrigan on the Still camera. John Cromwall directing Nancy Carroll and Buddy Rogers.

* * *

Brothers Charles Lang, F. Edouart, George Clemens, William Rand, Russell Metty, Bob Rhea and James Knott are busy on Paramount production, "Innocents of Paris," starring Maurice Chevalier and directed by Richard Wallace.

* * *

Brothers Karl Struss and Alvin Wyckoff are photographing Mary Pickford's sound production at United Artists studio. Working with them are Brothers Stuart Thompson, Don Keyes, Walter Rankin and Frank Titus, while Oppie Rahmn is doing the Still work.

* * *

The progress made at the Paramount studios in sound equipment is due, to a great extent, to the personal efforts and many hours of deep study on the part of Brother J. Roy Hunt who is making rapid strides in developing a silent camera for sound production. Brother Hunt, besides being an ace caremaman is also a radio engineer.

* * *

Brother Ray Ramsey reports finishing the Akeley work on the last Tom Mix Production at F. B. O.

* * *

Brother Chas. Schoenbaum reports shooting a sound sequence for James Cruze assisted by Brother Gene Hagberg.

Brothers Ray June, Bob Planck, Lester White, Bert Shipham, Joe Biroc, Harry Wild with Jimmy Doolittle on the Still camera are working at the United Artists studio on Roland West's production "Alibi."

Out of Focus

A Bad Times Story

Vonce der vas it a nice leetle boy, by de name from Haseestent Kemeramen. He vas voiking vit a leetle Kemeramen who vas a big feller. Von day he vent by locations and did not call it the Beezeness Menegement from the Local. All from a sudden came it a call from a BIG kemeramen who vas it a leetle feller, and he said to the Beezement Menegeness from the Local, I vant it, I shall have it dat leetle Haseestent Kemeramen to voik for me at more bucks per week. The Beezeness Menegement called and called and could not find the Haseestent Kemeramen, so de nice leetle Haseestent is still voirking for de little Kemeramen vat vas a beeg feller and not so many bucks. So ven you go by locations, call the Beezement Meneger and dis same thing vont heppen by you. Dot's a nice leetle Haseestent, hoil up de shuttle.

———o———

Film Care in the Tropics

After spending a great many years in the San Fernando Valley, I naturally would have a great deal of experience in the handling of film under adverse conditions. So I will suggest a few tips for those that contemplate such a journey.

Do not open Panchromatic Film in the light.

Do not light cigarettes with Panchromatic Film.

Do not try to film scenes with lens caps on.

An umbrella over the director makes the cameraman hot.

When developing tests, use the hypo last.

In drying tests, if soaked in alcohol they dry quicker.

In drinking the alcohol, tests are not necessary.

Better results will be obtained if exposed film is sent to laboratory in sealed cans instead of baskets.

A Gamma filter on straight stock saves footage.

These are just a few of the more important things. I am glad to state that due to the fact that arrangements have been made with the Council at Burbank, passports are not required any more and a paid-up card will get lots of things from Brother I. A. members when on locations.

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HOLLYWOOD

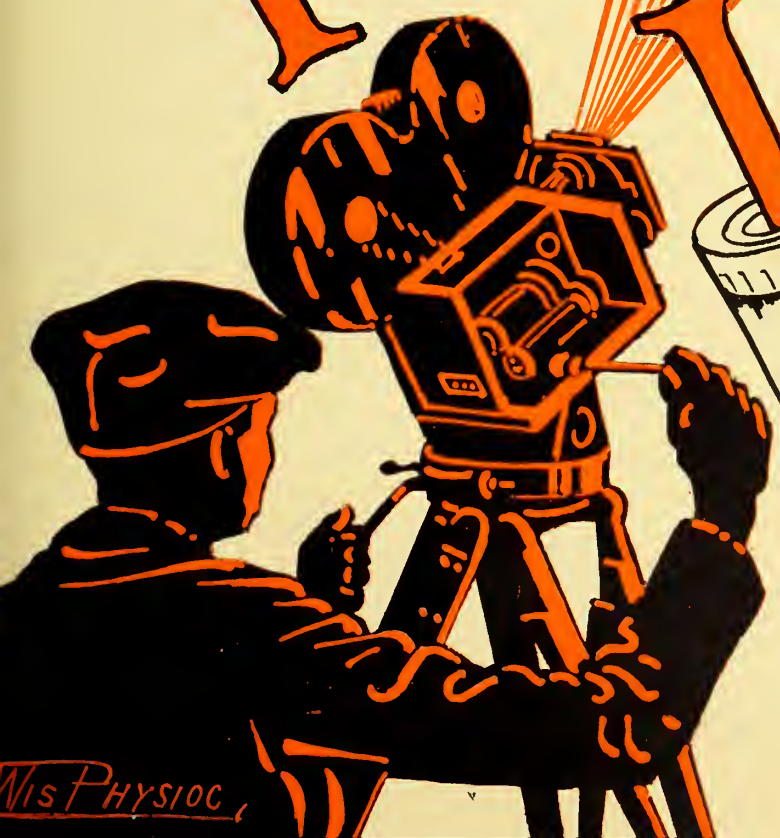
Permit us to extend congratulations to I. A. T. S. E. No. 659 and to wish you a long and prosperous life, and to say that it gives us great pleasure to become a charter patron of your Publication.

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The International Photographer

I.A.T.S.E. 659



MARCH
1929

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Hollywood, California

THE International Photographer

OFFICIAL INTER-LOCAL BULLETIN OF THE INTERNATIONAL PHOTOGRAPHERS OF THE MOTION PICTURE INDUSTRIES, LOCAL NO. 659 OF THE INTERNATIONAL ALLIANCE OF THEATRICAL STAGE EMPLOYEES AND MOVING PICTURE MACHINE OPERATORS OF THE UNITED STATES AND CANADA.

AFFILIATED WITH
LOS ANGELES AMUSEMENT FEDERATION, CALIFORNIA STATE THEATRICAL FEDERATION, CALIFORNIA STATE FEDERATION OF LABOR, AMERICAN FEDERATION OF LABOR.

Vol. 1 HOLLYWOOD, CALIFORNIA, MARCH, 1929 No. 2

"Capital is the fruit of labor; and could not exist if labor had not first existed. Labor, therefore, deserves much the higher consideration."—Abraham Lincoln

Federated Voters Active

Organized Labor has for many years been aware, as has also the business interests, that within its grasp was a strength unused. This is the voting strength of its membership. The only reason that this strength has not been useful to the membership of the various unions is the fact that the power has been only potential and never co-ordinated so that it might be of value.

The Federated Voters organization has brought about the co-ordination of this potential voting strength and is to be used for the betterment of the amusement industry.

There are many laws that need enforcement for our safety. There is a need for the enactment of new laws. There is also a need for proper interpretation of old laws, which have in many instances been construed to mean the opposite of that originally intended.

We are living in a period wherein those who ask shall receive if they have sufficient power to see that they get what they ask for. The large amusement companies all use the voting strength, they claim they can produce, to incur favors or for pressure on those who are interpreting the laws, but the fact remains that the votes these companies say they can produce are ours.

The Federated Voters will not use the strength that they have for all political matters, but will confine themselves to those matters which are of interest and economic value to the members. There is nothing legitimate that we want which we cannot have so long as we present a united front when we vote.



—Photo by Edwin Bower Hesser.

HOWARD E. HURD
Business Representative

To our friends everywhere who have not had the pleasure of meeting our business representative, Brother Howard E. Hurd, this column is addressed.

Brother Hurd took over active duty with Local No. 659 on August 1, 1928. He was unanimously chosen by members of the organization because of the background of experience which has aptly fitted him to represent the camera workers.

Early in his business career Brother Hurd, as a newspaper reporter, covered general assignments for the Chicago Daily Journal.

He is a graduate lawyer, having originally matriculated at the Kent College of Law in Chicago and completed his legal training with the La Salle Extension University.

More than five years ago he took over duties in the office of the camera department of the Metro-Goldwyn-Mayer studios. It was during this time that he became acquainted with virtually every cameramen on the Pacific Coast. He not only became acquainted with them personally, but learned their problems, their abilities, and their needs.

That is why they have elected him to represent them in this, their struggle for decent hours, better working conditions, and fair compensation for services rendered.

Welcome President Canavan

We welcome you President William F. Canavan. It is hardly possible to express to you in words the pleasure experienced by the cameramen in anticipation of your proposed visit to Los Angeles. We welcome you as the President of the International Alliance of Theatrical Stage Employes and Moving Picture Machine Operators, because of the exalted position this title confers and the respect it commands from all. We welcome you as the highest executive officer of our parent organization, because of the tremendous power that position controls. We welcome you as the arbiter of our contentions, the procurator of equity. But we also welcome you as "Bill" Canavan for your sincerity of purpose, your fairness to all, the sterling quality of your character, friendship and comraderie. We extend a sincere and whole-hearted welcome to you "Bill."

The
INTERNATIONAL PHOTOGRAPHER
Published monthly by
LOCAL No. 659

I. A. T. S. E. and M. P. M. O.
of the United States and Canada

IRA B. HOKE.....Editor
ARTHUR REEVES....Advertising Manager
CHARLES P. BOYLE.....Treasurer

Entered as third class matter February 13, 1929, at the Post Office at Los Angeles, California, under the provisions of Section 435½ Postal Laws and Regulations. Permit No. 1997.

Office of Publication
428 MARKHAM BUILDING
6372 Hollywood Boulevard
HEmpstead 1128 Hollywood, California

The Sound Track

General Meeting

The date of the next general meeting will be announced by postal card.

———o———

Change of Address

Notify the Local office immediately of any change in your address or telephone number.

———o———

Location Notice

Members leaving town on location must notify the Local office as soon as they know definite details of the intended trip.

When reporting, it is essential that you give names of entire camera crew, place of location, and length of time you expect to be out of town.

Co-operation with the Local on this matter is the only way in which you can expect the protection of this Union while you are out of the city.

———o———

Local No. 644, New York, has moved headquarters. Their new address is 233 West 42nd street, Suite 606-610.

———o———

Initiation Increases

The increase in initiation fees which went into effect on February 14, renders classifications as follows:

First Cameramen	$500.00
Akeley Cameramen	500.00
First Process	500.00
Second Cameramen	250.00
Still Photographers	250.00
Second Process	250.00
Assistant Cameramen	125.00
News Cameramen	100.00
Industrial Cameramen	25.00

Available List

Never, until the formation of Local No. 659, have the camera-workers of the Pacific Coast had a central office, or guiding head. They were alone in their quest of employment, unknown and unvalued.

Today, through careful organization and wise Local government, the cameramen enjoy the finest employment medium that has ever been available to them. For the first time since the inception of the picture industry a definite value has been placed upon the services of the cameraman.

Our business representative accurately files each member as he reports himself available for duty. Members names are then taken from this list for employment in the order, by date, of their application for work.

Studio managers upon placing a call for men of any classification are thus immediately supplied with competent men.

That studio managers realize the efficiency of our Local is proved by the number of men employed through this office. Every studio in the city avails itself of this service to the mutual benefit of all.

———o———

Notary

A notary public is now available in the offices of the International Photographers, Suite 428 Markham building.

———o———

I. A. By-Laws

We still have left a few copies of the Twenty-Ninth Convention Proceedings of the International Alliance, as well as the Thirty-Second Edition of the I. A. Constitution and By-Laws, in the Local office which have not yet been distributed.

If you have not yet received yours come in and get them at once.

———o———

Union Periodicals

Brother Maurice Hall is the official subscription representative of The Los Angeles Citizen, for Local No. 659. The Los Angeles Citizen is the weekly bulletin of Union happenings, and Brother Hall assures us that if subscribed to will prove intensely interesting to members of Local No. 659.

Besides representing the Los Angeles Citizen, Brother Hall will place your subscriptions for any Union made magazines. Call him at either GLadstone 4203 or HEmpstead 1128.

THE INTERNATIONAL PHOTOGRAPHER while primarily the house bulletin of Local No. 659, enjoys the distinction of being placed monthly in the hands of more than 1,000 photographic workers of the Motion Picture Industry.

The members of this Local, together with those of our sister Locals, No. 644 in New York, No. 666 in Chicago, and No. 665 in Toronto, represent the entire personnel of photographers now engaged in professional production of motion pictures in the United States and Canada. This condition renders THE INTERNATIONAL PHOTOGRAPHER a voice of an ENTIRE CRAFT, covering a field that reaches from coast to coast across the nation.

Brother Herrmann Is Live Wire

The arm of the International is long. Early in February several cameramen on location with Pathe high in the mountains near Lake Tahoe were somewhat surprised to find that our steward of the northern territory, Brother John L. Herrmann, was on hand to check cards. The card numbers and names of cameramen holding them were promptly forwarded to this office. The Pathe boys were as follows: Brothers Jacob Baderacco, Vernon Larson, Roy W. Noble, and Wm. H. Dietz.

On February 17, Brother Herrmann was on hand to check over the boys from Universal, working on location in the Yosemite valley. He found all members in good standing as follows—Brothers Geo. H. Robinson, John Hickson, Joe Harris, Geo. G. Trafton, Wm. Dodds and Wm. J. Shuck.

———o———

Brother Jackson Eagan is now at Atascadero recovering from a recurence of illness incurred by the gas attack of the Chateau Thierry drive in June, 1918. Jack, who was a member of the Seventh Machine Gun Batallion, will be remembered by army men as one of the founders of AMAROC Post of the American Legion at Coblenz in 1920. The word AMAROC was made up of the two initial letters of AMerican ARmy of OCcupation.

———o———

We just met King Charney talking things over with one of his satisfied Agfa customers.

Still Men

Still men, you are selling a finished print to your employer — nothing more. The quality of the print he receives is his means of measuring your ability. It is of vital importance that you insist that your finishing be done in shops capable of giving the highest quality of service.

These shops are not the cut-rate establishments your employer might be induced to patronize.

The highest quality of commercial finishing in Hollywood today is being done in studios owned and operated by members of Local No. 659. In every instance these men are endeavoring to standardize quality and price. The non-Union, cut-rate men are tearing down both with inferior material, cheap chemicals, cheap help, and high pressure salesmanship to your employer.

Still men, it's up to you. Don't let them get away with it. You are the ones who suffer, because your employer judges your ability by the prints delivered to his desk.

Sell Union-finished stills to your employer. Show him that a few cents more for standardized finishing means dollars to the lobby display. The Union-finishers are with you on this move. They will co-operate with you 100 per cent. They are prepared to deliver the highest standard of finishing because they are able to give the greatest care to their work, employ only the highest skilled workmen, and use the very best material obtainable.

Your employer is a business man. If you explain the situation he will realize in a moment that you are right. He patronizes the cut-rate finisher because the 'just as good" sales talk got to him before you did.

———o———

Thanks, Mack

Brother Macklyn Stengler recently presented to the organization a fine walnut gavel which henceforth will hold sway on the chairman's desk at all meetings.

———o———

Demand the Label

The Union-Made label on the goods you buy means that the article was made by satisfied artisans, working "white man's hours" under healthy, sanitary conditions. The Union Label is your protection as well as theirs.

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The Great Adventure

They're off on the great adventure. Brothers Clyde DeVinna and Dale Deverman have just sailed on the first lap of the long journey to British East Africa, and are to be followed by George Nogle and Bob Roberts. They will film "Trader Horn" for Metro-Goldwyn-Mayer.

Clyde DeVinna is to go by way of London, where he is to pick up special photographic equipment. Thence he will go to Paris, Genoa, down the Mediterranean to the Red Sea and finally around the east coast of Africa to Mombasa.

George Nogle will follow a slightly different route, having a stop at Berlin, where he is to make special scenes for Clarence Brown's new picture before proceeding on his way to join the M-G-M forces at Mombasa.

Martialing their forces at Mombasa, the company will proceed some 800 miles into the interior of the Dark Continent where, near the famous Lake Victoria, the story of "Trader Horn" will be photographed.

At Nairobi, in Kenya, will be established a complete laboratory capable of handling film immediately after it is exposed. This laboratory, which is under the supervision of Fred Meeks, assisted by Dominick DeCento, will be so carefully equipped that the boys will be able to develop negative, make prints, and project them just as they would at the home studio.

Besides the laboratory equipment, Clyde DeVinna is taking three Bell and Howell cameras and two Akeley cameras, thus allowing one spare camera of each type in case of emergency.

Albert Arnold, of Studio Mechanics Local No. 37, carries enough reflectors and silver leaf to take care of reflected light necessary.

Brother DeVinna's three trusty partners, Eddie Cornwall, L. E. McAfee and W. B. Riley of Local No. 37, have a 1200-amp. portable motor generator set equipped with a Liberty motor which they will nurse through the long stay in the Jungle Continent. They carry besides necessary cables and equipment 1200-amps. in arc lights and 800-amps. in Mazdas.

Harry Alviez of Local No. 37, will prop the trip and says he expects to have an easy time as he understands Africa is already equipped with the necessary fixings to make a set look "it."

Brother Clyde DeVinna will be remembered as the photographer of that recent masterpiece of the Pacific Islands, "White Shadows in the South Seas." He later made a trip to the same location where he filmed "The Pagan." On both of these expeditions he was accompanied by George Nogle and Bob Roberts. The trio feel by this time quite capable of handling film under adverse conditions.

Dale Deverman is taking his first long trip with the famous trio headed by DeVinna.

"We'll be back about September," said Brother DeVinna as he left the offices of Local No. 659 a few hours before his departure from Los Angeles, but we expect to hear from him before that time, of course. You see Clyde is very widely known for his expertness in handling short wave radios, and it will be remembered that he established some remarkable contacts during the trips to the South Sea islands. On the present location, DeVinna is the proud operator of the latest type short wave set to be obtained, an exact duplicate of the one carried by Commander Byrd on the South Pole Expedition.

"I have complete confidence," said DeVinna, "of establishing regular contacts between the home studio in Culver City, and the location in Central Africa."

Further news of the camera crew of "Trader Horn" will appear in future issues of the International Photographer, which by the way, will be delivered each month by special post to the camera headquarters in Nairobi.

—o—

Reprotone A and B

The J. E. Brulatour Company announces two new types of sound reproducing negative, from the laboratory of the Eastman Kodak Company.

Reprotone, Type A, is especially recommended for the Photophone or R. C. A. system of sound photography. It is characterized by extremely high contrast, fine grain, and high resolving power. Speed is approximately the same as positive film.

Reprotone, Type B, is designed for the Western Electric system and is characterized by fine grain, high resolving power but with low contrast, allowing for complete gamma control in development. The emulsion characteristics are of such nature as to allow for greater freedom in exposure and development.

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Up and Down Celluloid Lane

It has been rumored that everybody has bought the M-G-M studios, except Eddie Horne and Harry Glickman of the Tremont Laboratories.

* * *

Pete Shamray, "the small boy with the big concern," Dupont, while service shooting around the big laboratories last week, stopped in long enough to say that business is excellent.

* * *

George H. Gibson, laboratory technician, who has been identified in film processing during the past fifteen years, has joined the Sales and Service staff of J. E. Brulatour, Inc., distributors of Eastman Films.

Making Money

The International Photographer is pleased to quote several paragraphs from the pen of one of the most progressive observers of modern moving picture problems. We refer to Mr. Welford Beaton and the article, excerpts of which are here quoted, appeared in the Spectator. Mr. Beaton says in part:

"Henry Ford has his weak point. By working his employes only six or seven hours a day and only five days a week, and by paying them higher wages than other manufacturers pay their employes for longer hours and one more day a week he has made only one billion dollars.

"Nothing would assist so much in making pictures better than sensible working hours in studios. There is money in regular hours.

"The greatest benefit that could be derived by the producers of motion pictures would come from the inauguration of a forty-four hour week in every branch of the industry; eight hours a day for five days and four hours on Saturday.

"It is inevitable that proper hours will be inaugurated in the industry. Producers are losing money by delaying the time.

The producers really think that any suggestion of sensible hours is antagonistic to their interests. They can't see that they're wrong. They can't see that when Henry established his abbreviated week at unabbreviated pay he was not thinking of his men at all. He did it solely to make more money than he could make by not doing it. A producer who can't grasp the wisdom of it, at least can contemplate Henry's billion. It's a whale of a lot of money."

Mr. Beaton goes on to say that where the movie producer works his men to complete exhaustion during a week of fifty-nine hours, Henry Ford gets as much from employes in a thirty-hour week because his men are fresh with clear brains and ready muscles.

Mr. Beaton is right. One has only to put in a few days time behind the desk at any of the motion picture worker's locals to realize how completely exhausted these men become after weeks of day and night work. Flesh and blood cannot stand up under those galley-slave hours.

The picture producer relies for the success of his expensive production on the eyes of his cameraman. Yet he demands that the cameraman work from ten to sixteen hours a day, long after his eyes are capable of giving anything like 100 per cent efficiency. The cameraman deals in the sensitivity of silver; one of the most exacting trades of science. The light that passes through the lens of his camera onto the sensitive silver film is measured by one scale, and one alone; the eyes of the cameraman. If his eyes become exhausted by long hours of strain they can no longer give efficient service. Long hours; weary weeks. There is only one answer: inefficiency. The producer loses in the quality of his picture and the cameraman loses his health.

We thank Mr. Beaton for his timely article and in closing quote his message to the motion picture producers.

"Whoever starts it (the shorter working week) is going to find that he is getting better pictures for less money, that he has back of him a loyal organization, and that he can get the pick of screen workers of Hollywood to work for him."

———o———

Make-up Artists Progress

All cinematographers know of the remarkable growth of that unique organizaiton known as the Motion Picture Make-up Artists Association.

On its membership rolls are found every recognized make-up artist in the Motion Picture industry.

Only two years since its organization, its growth has been truly remarkable and conductive of good feeling between the boys.

Beautiful headquarters are maintained in the Max Factor's Studio building at Highland avenue and Hollywood boulevard, and regular meetings are held each week. At these meetings demonstrations are given by the various members to the extent that each artist helps the other in solving the problems relating to their particular branch of the industry.

Mr. George Westmore is in charge of these demonstrations, and has performed his work in a most efficient manner.

The organization, itself, is ably managed by its officers:

President, Phil Gastrock
Vice-President—Jack Pierce
Secretary—Guy Pearce
Treasurer—Max Fierstein

All members of the Association are members of Local No. 235, The United Scenic Artists Union.

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Parlor Tennis Note

Fred Campbell still holds the championship on the 16 mm. tennis court at the Pathe studio. Jean Smith says this is due to the fact that he makes his own rules. Fred being the Big Shot in the camera department is able to get away with it.

———o———

Brother Frank Heisler just received a post card from Brother Monroe Bennet who is in Nice, France, with Rex Ingram. The card is an ad map of the Taverne Lorraine and smacks strongly of vin rouge, vin blanc, et al.

Show Your Card

On a recent call from the Caddo Production for the picture "Hell's Angels," Local Union No. 659 furnished 10 speed cameras and 21 men.

The cameras were located at various positions from pits below the ground to the cat walk, ninety feet above the pavement at the balloon school hangars at Arcadia.

Quite intricate rigging was necessary as gear boxes had to be secured as well as the cameras. The service rendered by the grip department was 100 per cent plus, and Brother Bill Handy, with his crew from Local No. 37, are to be complimented.

Thanks, Bill.

JAMES E. WOODBURY
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Warner Bros.

Something Different

A number of members of Local No. 659 have associated themselves with the Hollywood (300) Rifle Club, an organization chartered by the National Rifle Association, and supervised by the Director of Civilian Marksmanship of the War Department at Washington, D. C.

The objects of the club are to instruct and educate the members in expert marksmanship with pistols, rifles, shotguns and bows; to foster good fellowship, and to encourage competition in marksmanship between teams and members of the club.

Springfield rifles, 30 caliber, Model 1903, ammunition, targets, and all necessary equipment are furnished to this club without cost, by the Director of Civilian Markmanship.

The Rifle Club offers at a very nominal annual outlay a form of recreation both different and more interesting than the average form of club amusements. Members of Local No. 659 are invited to join, and these interest can obtain further information from Brother Gene O. Hagberg, secretary of the organization.

A Blooper

It happened at the Davidge Laboratory. Roy Davidge called Walter, the delivery boy, the other day and told him to go over to Bell & Howell's to pick up a spark plug for the B & H printer.

Walter thought there was a catch to the order and said:

"Say boss, you're not fooling me are you? You know when I first came over here, the boys sent me after a film stretcher."

At any rate Walter hied himself over to the Bell & Howell shop, where he again became wary, and instead of asking for a spark plug, asked for a "what-cha-may-call-it" for the Davidge printer.

"Oh! You mean a spark plug to fog the sound-track patches."

"Yeah, that's it," said Walter, and the boys at the shop wondered why he acted sheepish about it.

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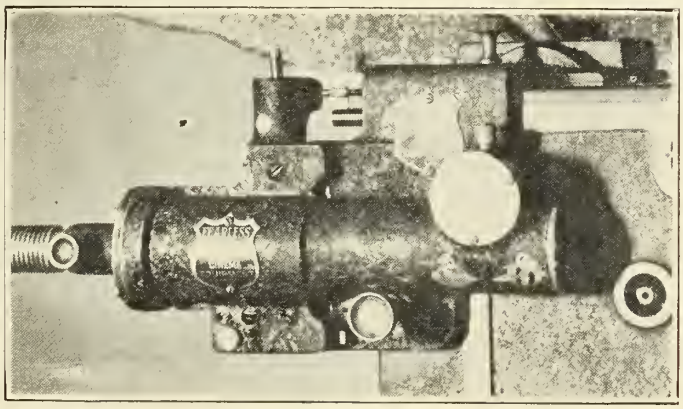
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ALFRED WEISS, *Pres.*
NEW YORK HOLLYWOOD

Sound Secrets

By ARTHUR REEVES

Sound pictures are fundamentally the product of an idea put together with a microphone, a film, a lot of secrets and considerable guess work.

In order to get by at certain critical stages of the game, one must be a Spanish athlete and know a heap of stuff clearly misunderstandable to anyone else. But the cameraman has to make good whether he is in the sound booth or outside.

The deep secret that shrouds each studio about its sound work, insults the intelligence of every cameraman. The producer will benefit when he lets the cameramen solve his troubles as he has done in the past. Sound pictures are now, and always will be, a photographic process.

The cameraman has worked hard to set up a standard of photography, only to have it shot to pieces by the advent of sound pictures, sound engineers, sound booths, and sound can't men. When we see some of the sound pictures we ask "where is the photography of yesterday?"

Here is the low-down on some of the lots. We don't mention names because there is no value in giving away their pet secrets.

Lot number one has built a box that just fits the camera and motor, with the finder outside the box. It was made sound proof with sponge rubber. They call this ensemble the "baby blimp."

Lot number two, on Santa Monica boulevard, made one picture using a sound booth, and the next one was made with the camera in a padded box. They never heard of the "baby blimp," but used common sense to get the camera out of the booth.

Lot number three has everyone signed to secrecy. This company has made a very successful western talkie. They use the sound booth very little, and when the camera is used out in the open, the cameraman and sound man get together and the sound of the camera is rendered unnoticeable by the position of the mike and the camera in relation to the amplification. No secrets, just plain common sense.

Lot number four, a well known comedy producer, has placed the sound equipment in charge of the cameraman. He has no sound engineers, instead he has two electricians from a sister local handling the sound equipment. With this combination they are shooting with the camera out in the open, and doing work that ranks higher in quality than most of the successful sound dramas.

After all photography is an open book, and it is the artistry and skill of the cameraman which makes one picture better than another. This applies to sound pictures of the future, their success will be proportionate to the co-operation given the cameraman.

Four Machines at Consolidated

Not content with being one of the best equipped laboratories handling commercial work, the Consolidated Laboratories now have the distinction of being the only laboratory on the coast operating four negative developing machines.

The machines just installed are known as the Erbograph, and are characterized by the fact that the film moves in a horizontal position instead of vertical. Advantages of this principle are easily recognized. The film is always submerged, thus obviating dangers from air oxidation or scum formations. Though being driven from both ends, the machine is surprisingly simple and easily accessible. It allows easy circulation of developer as supply tanks may be placed quite low.

The entire machine is notable for its lack of sprockets and complicated mechanism. This, of course, reduces chance of damage to negative while being developed.

The Erbograph machine during use is suspended in the developer tray, but when cleaning, the machine is readily lifted away so that the tank may be slid out and either cleaned separately.

These new negative machines, together with their positive machines, make the Consolidated Laboratories entirely machine-operated.

V. D.

Smith and Aller report perfect results from the new Dupont V. D. sound recording stock recently placed on the market by that company.

V. D. is an abbreviation for variable density, and is a specially prepared emulsion perfected by Dr. V. B. Sease of the Dupont Company, associated with Dr. Donald McKenzie of the Educational Research Products Corp.



'Hell's Angels"

Howard Hughes' epic of the air, "Hell's Angels," is at last in the cutting room with approximately 1,500,000 feet of film to its credit. Actual work on the picture started in October, 1927, but owing to the exacting nature of the story the photography was not entirely complete until fifteen months later.

From a technical standpoint "Hell's Angels" is probably the most unusual picture ever photographed. Before the picture is released the cost of production will total in the neighborhood of $2,000,000. With comparatively few sound effects the picture stands as a collosal silent production, relying on technique and thrills for its unquestioned success.

Our list of Local No. 659 camera workers who put in time on the picture has mounted to such an astounding figure that we believe it holds all records for the number of cameramen employed on a single production. While the majority of these men were called through the Local for short periods, the regular crew worked steadily for a period of approximately fifteen months.

Our Local records show the following lineup: Harry Perry, E. Burton Steene, Gaetano Gaudio, Roy Greiner, Harry Zech, Dewey Wrigley, Alvin Wyckoff, Elmer Dyer, Eddie Kull, Terrell Bonnie, Cecil Love, Walter Griffin, Gene Hagberg, Arthur Reeves, Paul Ivano, Earl Metz, Paul Cable, Robert Gough, Otto Himm, Ross Hoffman, William Stapp, Eddie Cohen, Fred Kaifer, Michael Santacrose, Walter Boling, Bob Miller, Irving Lippman, Leo Hughes, Paul Perry, Billy Tuers, Leonard Galezio, Ray Ramsey, John Leezer, Don Brigham, Rod Tolmie, Jockey Feindel, Arthur Lane, Marcel Grand, Jeff Gibbons, Roy Tripp, Jack MacKenzie, T. M. LeClede, Barney McGill, Victor Milner, David Ragin, Herman Schopp, J. O. Taylor, Warner Crosby, Charlie Miller, Donald Keyes, Bert Lynch, Harry Underwood, Raider Olsen, Roy Klaffki, John Eckert, Lauron Draper, Jack Kenny, Dave Smith, Charles Boyle, Harry Gant, Reggie Lyons, Don Sargent, J. Dev. Jennings, George Clemens, Ernest Smith, Newton Hopcraft, Harry Marble, Ray June, Gordon Head, M. Hall, Paul Lockwood, Ed. Snyder, Jack Greenhalgh, James Matthews, Wm. Margulies, John Silver and Glenn Kershner.

* * *

Andre Barlatier has made some astonishing Filmoscope sales during the past month. An order for 1000 Filmoscopes was followed within a few days by orders from England, Germany, India and Antigua.

* * *

Ernest Depew, with Joe Walters on the still camera is just finishing "The Devil's Chaplain" for Trem Carr Productions.

Charles Rosher to England

Brother Charles Rosher sailed on the steamer Majestic on Saturday, February 9, for Elstree, England, his "home town," where he will take over a position on the photographic staff of the British International Studios.

In order to accept this offer, Mr. Rosher has made special arrangements for his release from the United Artists studio, where he has been under contract since the inception of that organization more than ten years ago.

The studios at Elstree, known as the Hollywood of England, were opened more than two years ago on a commercial production scale equal to that of any studio in the United States. The British International lot has at present four large stages 300 by 200 feet and 40 feet high. Other buildings house prop rooms, laboratories, carpenter shops, etc., much in the manner of local studios.

———o———

The picture business must be good, the Lyons Brothers are both working. They are at the Warner studios on Vitaphone, helping Ben Reynolds put Sophie Tucker over.

THE
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Stereoscopic views of Movieland

Arranged in a series of subjects which will form a beautiful and instructive library.

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Hollywood California

Brulatour-Eastman Research Building

J. E. Brulatour, Inc., is completing construction on a class "A" building at 6706 Santa Monica boulevard, Hollwood, which will be occupied by the West Coast technical service staff of the Motion Picture Division of the Eastman Kodak Company.

The feature of this newest progressive gesture by the Eastman people which is of vital interest to the cinematographer is the research laboratory which offers many interesting and potentially profitable features.

This laboratory will at all times be under the supervision of men trained in the Research Department at Kodak Park, Rochester.

Approximately $35,000 has been spent in mechanical and scientific equipment with many new developments pertaining to conjunctive photography in sound production.

Research engineers in the service of Eastman Kodak Company have inaugurated their educational campaign on the West coast and it has been the privilege of many cameramen to hear the addresses made by these scientists at recent meetings of the Academy of Motion Picture Arts and Sciences and kindred picture organizations.

An outstanding departure in film service is offered in the private theatre adjoining the new Research Service building. This theatre will be equipped for sound projection on the popular processes and will have comfortable seating accommodations for fifty.

The theatre is being equipped under the supervision of sound engineers from the East and is expected to be a revelation in small-room sound picture production, it having been especially constructed for this purpose.

The throw from projection machine to screen will be seventy-two feet; the ceiling is twenty-two feet and the width of the auditorium twenty-five feet.

This theatre, the research laboratory and the research library will be available at all times day and night by appointment to all accredited technicians and executives in the industry without charge or obligation of any character.

———o———

Brother E. G. Ullman reports business brisk in the insurance business. He is at present representing the New York Life Insurance Co.

Trueball Tripod Heads



MODEL B

Their use for follow shots assures smooth operation, and equal tension on all movements under any condition, as they are unaffected by temperature.

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REGINALD E. LYONS
Now Photographing Vitaphone Productions
Warner Bros.

Henry Ford, Please Notice

Brother Reginald Lyons, now working at Warner Brothers studio on Vitaphone, has the distinction of being the only cameraman who owns a Blitzen Benz, an English Napier, and a McFarland automobile, to say nothing of a racing motorcycle, yet goes to and from work in a Ford.

Jackman to Be Dentist

Brother Floyd Jackman after several months of post graduate work at the University of Southern California, College of Dentistry, has returned to his former profession of dentistry. Previous to entering the motion picture camera field, Brother Jackman practiced dentistry for nearly ten years.

Because of the confining nature of dentistry Brother Jackman turned to motion picture photography which profession he followed for several years. That was in the days when pictures were filmed out in the great open spaces. Today, however, the soundproof camera booth proves more confining than a dentist's office so Brother Jackman decided to take up once more the drill and cement bottle.

Dr. Jackman's equipment is of the latest type manufactured by the Ritter Dental Mfg. Company. His office, 706 Hollywood First National Bank building at Hollywood boulevard and Highland avenue, is a model of neatness and efficiency.

———o———

Brother Bert Longenecker is making some interesting tests for the Reel Tone Company on their unique sound reproduction process. Bert is the official photographer for the company.

———o———

Brother Abe Scholtz is supervising laboratory work for Sam Goldwyn Productions.

Mechanical Research Laboratories

Engineering, Design, Construction

OF

Special Motion Picture Mechanisms and Equipment

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Hollywood, California

Fryer Tests New Stock

Brother Elmer Fryer, head of the Warner Brothers protrait and still department, is making extensive experiments with the new panchromatic film pack to be placed on the market by the Eastman Kodak Company in the near future. Every possible use to which this type of film is adaptable is being tested by Brother Fryer. Special attention is being paid to its reception of color values, which is destined to be an important factor in the future of both talking and silent motion pictures.

———o———

Brother J. R. Lockwood has opened a large office in the Fowler Studio to take care of his camera rentals in Hollywood.

Mr. W. J. German, vice-president and general manager of J. E. Brulatour, Inc., of New York, is visiting the West Coast offices of J. E. Brulatour and Eastman Kodak Company.

———o———

Brother Irby Koverman, who is shooting for Paramount News, had an excellent subject in the current issue from Panama, where he is photographing fleet maneuvers. His latest subject is an air picture of the fleet in battle formation.

———o———

Brother Ray June is now making tests for Norma Talmadge for her next audible cinema.



This is a corner in the new Max Factor Make-up Studios in Hollywood. The machinery shown here is that of filling and closing grease paint tubes. The Max Factor Laboratories are equipped with the finest machinery obtainable. Few realize the magnitude of this institution or its wide scope of operations. It is the only establishment of its kind in America, and its importance to the Motion Picture Industry is keenly felt by every Cinematographer.

". . . a color so pure and so beautifully blended that every sensation of life comes as if by magic to the screen . . ."

—From International Photographer for February.

Vitacolor

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Max B.

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Los Angeles, California

Pans and Tilts

Brother Bud Hooper just returned from an extended news assignment in the Pacific Islands. Hold everything! We thought he had been away from home. The "islands" was Catalina.

* * *

Brother Jackson Rose just completed the Tiffany-Stahl super special production, "Zeppelin," directed by Reginald Barker, with Conway Tearle, Clare Windsor and Larry Kent in the cast. This is the greatest production as well as the most expensive ever attempted by Tiffany-Stahl. A real Zeppelin was used in the ice field scenes and Brother Rose has a beautifully photographed picture to his credit. Brothers M. Hall and Cecil Wright were his associates on the camera staff.

* * *

"Between Pictures" has a new meaning now. Karl Struss for instance has emerged for the time being between the sound and silent versions of "Coquette." Though still a devotee of the golf links, Karl has had time to design a new finder bracket for the Bell and Howell camera that remains stationary on the tripod bed thus making it possible to line the finder without racking the camera back and forth.

* * *

Filming special railroad and snow effects for the M-G-M feature, "Thunder," Brother Henry Sharp assisted by Brother Charles Straumer, is touring the Middle West and various point in the East. Among the numerous stops scheduled are the Baldwin Locomotive works in Philadelphia, and the railroad yards at Chicago.

* * *

Brother John Mescal, golf champion of Local No. 659 and former city champion, after 16 years of earnest endeavor succeeded in making a hole-in-one at the Fox Hills Country Club, on January 24. It was a 150-yard shot at the eleventh hole. Brother Mescal has just completed "Leather Necks" for Pathe.

* * *

Brothers Stewart Thompson and Walter Rankin have been having a sweet time lately, recording the activities of the twenty-five "Coquette" girls who are here on a pleasure tour as the guests of Mary Pickford.

Brother Earle Walker has just wrapped up another short comedy, "Toots and Casper," for the Darmour Productions at the Cal-Art studio.

* * *

"King of the Khyber Rifles," an all movietone production for the Fox Film Company, is being photographed by Brother Joe August. With him on the second camera is Brother Irving Rosenberg. They are assisted by Brothers Harry Webb, and J. P. Van Wormer. Brother Clarence Hewitt is the man under the focusing cloth on the still camera.

* * *

Because of the illness of his father, Brother George Bourne has left the camera profession indefinitely. He is now with his parents in Florence, Arizona.

* * *

Brothers John J. Mescal, Jake Badaracco, Burnett Guffey and Vernon Larson, with Brother Whitey Schafer on the still camera, are wintering at Lake Tahoe. They are photographing "High Voltage" for Pathe, a feature directed by Howard Higgin, featuring Wm. Boyd.

* * *

Brother Al Gilks left for the Paramount studios in New York on February 1 to take charge of the photography on the sound production "Cocoanuts."

* * *

Brother Elmer Dyer has just finished the air photography on the latest Hoot Gibson picture, "The Winged Horseman." A good share of aerial camerawork has come his way lately as he was loaned by the Gibson company to do several weeks work on "Hell's Angels."

* * *

Just as we go to press with the International Photographer there is a rumor afloat that Brother Walter Scott of Local No. 644, and Brother Dan Clark of Local No. 659, have returned from their long trip to the South Sea islands. They have spent the past several months in Tahiti, making sound pictures with native backgrounds, for Fox Film Company.

* * *

Brother Leonard M. Poole of the Fox News is now on a six-week tour in the southwest territory. A report from him says the thermometer fell so low it had to be dug out of the ground. He is making a "Variety" reel in the mountains, hence the cold weather.

Out of Focus

Answers to Fans

S. A. P. Chicago.—No, Arthur Lake is not a summer resort, and Toluca Lake is not his sister. Fred Jackman did the trick shots in Noah's Ark.

* * *

Simpson, Milawukee. — Lap resolves are not promises made while in love, but the correct term is Lap Dissolves; a technical term, and used a great deal by Jackson Rose in "The Girl on the Barge."

* * *

Goofus, Gila Bend.—Double explosion is wrong. It should be double exposure. It has nothing to do with the weather. You can see it used to great advantage in "Hell's Angels," photographed by Harry Perry.

* * *

Getrie, Long Neck, N. Y.—Wally Beery does not sing tenor and is greatly respected in this community. Pliny Horne is not a musician, but a well known cameraman.

* * *

Doolittle, Seymore, Neb.—S. M. P. E. does not mean "Some More People Expected" when the potatoes are getting low, but stands for Society of Motion Picture Engineers. It is a splendid organization of which Frank Good, who photographed "The Glorious Trail," is a member.

———o———

Chicago:

Wife comes home unexpectedly and finds woman with husband. Wife shoots husband. Wife is acquitted.

Note: Is your 659 Insurance paid?

———o———

Want Ads

For Sale: Tripod, by cameraman with 2 broken legs. Box 2.

* * *

Wanted: Assistant cameraman to work partly in sound booth and partly outside. Apply to Fred Westerberg.

* * *

For Sale: Bell and Howell tripod by cameraman with cracked head. Send replies to Box 3, Norwalk.

* * *

For Trade: Will trade old Pathe for late model Mitchell if in good condition and equipped for sound work. Have centrally located business lot, apartment building and necessary cash for boot. S. O. L. Box 10.

A higher premium than ever before

Today—in this new era of sound pictures—there is a higher premium than ever before on film uniformity.

For *sound* quality is even more sensitive than *screen* quality to any variation in the film.

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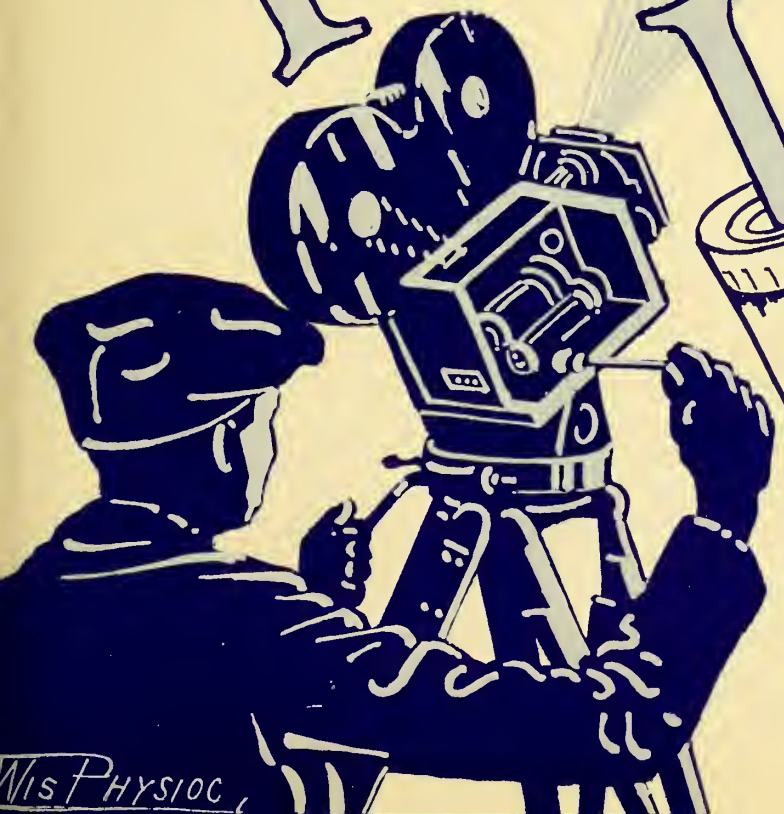
STEAM SHOVEL AT WORK ON EXCAVATIONS FOR NEW FACTORY BUILDINGS, FEBRUARY 8, 1929

Mitchell Camera Corporation

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The International Photographer



APRIL
1929

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A bulletin has been prepared, containing complete technical information regarding these new sound films—a copy will be sent to you upon request.

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THE International Photographer

OFFICIAL BULLETIN OF THE INTERNATIONAL PHOTOGRAPHERS OF THE MOTION PICTURE NDUSTRIES, LOCAL NO. 659, OF THE INTERNATIONAL ALLIANCE OF THEATRICAL STAGE EMPLOYEES AND MOVING PICTURE MACHINE OPERATORS OF THE UNITED STATES AND CANADA.

AFFILIATED WITH LOS ANGELES AMUSEMENT FEDERATION, CALIFORNIA STATE THEATRICAL FEDERATION, CALIFORNIA STATE FEDERATION OF LABOR, AMERICAN FEDERATION OF LABOR.

Vol. 1 HOLLYWOOD, CALIFORNIA. APRIL, 1929 No. 3

"Capital is the fruit of labor, and could not exist if labor had not first existed. Labor, therefore, deserves much the higher consideration."—Abraham Lincoln

Richard J. Green



General Secretary-Treasurer of the I. A. T. S. E. and M. P. M. O. of the United States and Canada

Richard J. Green, who accompanied President Canavan on his recent visit to Los Angeles in behalf of the Cameramen, has been an International officer since 1917. He has been General Secretary-Treasurer since 1924.

Brother Green is deeply concerned in the affairs of the Cameramen, which interest is prompted, no doubt by a secret ambition, revealed in a moment of weakness to the writer, to hold a card in the Cameramen's Local.

Though a resident of New York City, like many other Easterners (William D. Lang, please note), he owns a home in California, and looks forward to the day when he will receive his apprentice's card in Local No. 659, and spend most of his time in sun-kist Los Angeles.

Federation Powerful

In the amusement industry you have a condition not equaled in any other business in the world. The organized crafts in this industry are more closely knit together within the separate locals, in jurisdictions and nationally, than any other trade. The spirit, interest and morale of the membership is not to be matched in all branches of organized labor.

While the Local Unions attend to the business which directly concerns their local affairs, the national officers oversee that which is of more than local importance. There are many problems in each jurisdiction which, while they may be strictly confined in their scope to that jurisdiction, are of interest to more than one of the crafts. Sometimes only two crafts may be concerned in the problem, while at other times all of those in the industry are vitally interested.

The amusement federations have been formed for the proper consideration of these problems and have done much to promote harmony in the industry. They have great power, as they represent not only a large body of men but a large percentage of the total employees of the firms for whom we work.

The Los Angeles Amusement Federation is one of the most successful federations in the country. It is formed and acts for your benefit and for no other purpose. It is composed of the Musicians Local No. 47, A. F. of M., Stage Employees Local No. 33, I. A. T. S. E., International Photographers Local No. 659, I. A. T. S. E. and Motion Picture Projectionists Local No. 150, I. A. T. S. E. It must receive your support as it is your greatest strength.

William F. Canavan



President of the I. A. T. S. E. and M. P. M. O. of the United States and Canada

President Canavan is known as "Bill" to his vast army of I. A. T. S. E. adherents. He is quiet and unassuming, capable of lightning-like decisions, conveying in few words the sound judgment that his years of experience in labor matters have impressed upon him.

He has been an executive officer of the International Alliance for the past 17 years.

In 1924 he was elected president of the I. A. T. S. E., which position he has held since.

The effect of President Canavan's visit to the Coast upon the establishment of standardized conditions for the cameramen has not yet crystalized, and no official announcement can be made until a definite conclusion has been reached and sanctioned by both the Union and the employers.

The
INTERNATIONAL PHOTOGRAPHER
Published monthly by
LOCAL No. 659

I. A. T. S. E. and M. P. M. O.
of the United States and Canada
IRA B. HOKE.....Editor
ARTHUR REEVES....Advertising Manager
CHARLES P. BOYLE.....Treasurer
Entered as third class matter February 13, 1929, at the Post Office at Los Angeles, California, under the provisions of Section 435½ Postal Laws and Regulations. Permit No. 1997.
Subscription Rates—United States and Canada, $2.00 per year. Single copies, 20 cents.
Office of Publication
428 MARKHAM BUILDING
6372 Hollywood Boulevard
HEmpstead 1128 Hollywood, California

The Sound Track

Like the record of vibrations on the sound film, this column voices the vital official news of Local No. 659.

—o—

The date of the next open meeting will be announced by postal card.

—o—

Correct Address

We admit it's cheaper to move than pay rent—BUT don't fail to notify this office of your new address.

—o—

Available List

Among the assets offered by the Local Union, No. 659, to members in good standing is its complete and carefully operated employment bureau, known as the Available List.

Business representative, Howard E. Hurd, files the name of each member reporting available for duty. Members are then taken from this list for employment in the order, by date, of their application for work.

Studio managers of every producing company in the city avail themselves of this quick and efficient service.

—o—

Reports for Du Pont

Dr. V. B. Sease, of the Du Pont-Pathe Film Manufacturing Corporation of Parlin, N. J., recently sent suggestion requests to the cameramen of Hollywood. These requests invited comments, criticism, or suggestion as to the betterment of the Du Pont moving picture negative. Members who have not returned these forms are urged to do so, in order to expedite the survey of Dr. Sease.

One Year Old

Local No. 659 was organized one year ago this month. Not only has the Union grown in strength and membership during that time, but it has lost few of those who began the struggle twelve months ago. Few crafts could have maintained an organization of nearly 750 members over that period without a noticeable percentage of loss, especially during the trying times experienced since March, 1928.

That our members have so faithfully upheld all standards means something more than careful organization. It means that every cameraman on the Pacific Coast feels in his heart the sore need of our craft for Unionization.

It has come. Moreover, it has come to stay. With the Union has come for the first time in the history of the moving picture profession the recognition of the cameraman's value to production.

During the past years he has given hours and weeks of his time to producers some of whom have not even thanked him for his sacrifice. The cameraman submitted to this injustice because he recognized that he stood alone against forces that were organized.

Today the cameraman is no longer alone. He is himself a part of a clean and powerful organization. He knows that he is one of the links in a powerful chain, and that in time of trial will be accorded equal recognition with the great chain itself.

This is why our members have remained staunch during the first stormy year of our new life. They realize that the precept of our body, while not so voiced, may be summarized in the words of the Great Teacher:

"In so much as ye have done it unto one of the least of these, my brethren, ye have done it unto me."

—o—

Location Notice

Several Local No. 659 men who have left town on location during the past month have found the advantages of checking in with our business representative before going.

When reporting, it is essential that you give names of entire camera crew, place of location, and length of time you expect to be out of town.

Co-operation with the Local on this matter is the only way in which you can expect the protection of this Union while you are out of the city.

THE INTERNATIONAL PHOTOGRAPHER while primarily the house bulletin of Local No. 659, enjoys the distinction of being placed monthly in the hands of more than 1,000 photographic workers of the Motion Picture Industry.

The members of this Local, together with those of our sister Locals, No. 644 in New York, No. 666 in Chicago, and No. 665 in Toronto, represent the entire personnel of photographers now engaged in professional production of motion pictures in the United States and Canada. This condition renders THE INTERNATIONAL PHOTOGRAPHER a voice of an ENTIRE CRAFT, covering a field that reaches from coast to coast across the nation.

Union Label Series

In the box below appears the first of a series of Union Labels to be published each month in this magazine, that our readers may become acquainted with the emblems to look for on each type of manufactured goods they purchase.

The Union Label is not only a sign of wholesome, cleanly standards of manufacture, but it is a symbol of Americanism, as the Union Label appears only on American made products.

Look For This Label

UNION-MADE
United Leather Workers Union Label

On your new camera cases before you accept them. It means they were made by Union workmen. This label should appear on actor's make-up cases, camera number boards, as well as trunks, sample cases and leather goods.

Ask Ned, He Knows

Brother Ned Van Buren is a representative of the Eastman Kodak Company, acting as advisory technician for the Hollywood territory.

For the past three years he has been specializing in the use of panchromatic film and filters.

Any problem you may have in the photographic line give it to Ned. He always comes up smiling with SERVICE.

Unemployment

From the Union Label Trades Department of the American Federation of Labor.

"Unemployment is a growing, serious menace. Its importance is uppermost in the minds of all thoughtful men and women. Several remedies have been suggested. I shall not discuss this important economic question at this time, except to say that I am in full accord with organized labor's long ago declared philosophy, that the only real remedy is to increase the purchasing power of the masses to a point that will enable them to consume that which they help to create, and that the only way to do this is through and by our trades unions.

"The union label, shop card, button and emblem is a silent, inexpensive, powerful and helpful means to this end. Injunctions or judge-made law cannot prevent us from spending our own money when, where and for what we please, AND IT SHOULD PLEASE ALL UNION MEN AND WOMEN TO SPEND THEIR UNION-MADE WAGES FOR STRICTLY UNION-MADE PRODUCTS."

Mohr's Set Colossal

The night club set of the picture, "Broadway," shortly to be seen under the Universal banner is of special interest to cameramen throughout the country.

Hal Mohr, chief cameraman, and Frank Graves, electrician, succeeded in so placing over 1000 Mole-Richardson incandescent lamps and 2000 single incandescents that almost numberless camera angles, each perfectly lighted, were instantly available. The set is said to be one of the most colossal interiors ever photographed on the Pacific Coast.

It is probable that Brother Mohr had at one time on this set more incandescent lamps than were used by all the other Hollywood studios combined.

To the Mole-Richardson Company, designers of lighting equipment, is due great credit for their co-operation with Mohr and Graves in the task of working out special lighting equipment for numerous traveling shots.

Hal Mohr will be remembered for his recent box-office success for Warner Brothers, "Noah's Ark."

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various units provide a means for obtaining any desired light value

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Sound Secrets

By Arthur Reeves

Having a few moments to spare recently, I went up to the control room of Radio Station KMTR to see my old friend Forbes W. Van Why, chief engineer of KMTR, and consulting engineer of four other major radio stations.

Realizing the similarity between his mixing board and the equipment used by studios in recording sound pictures, I asked him to tell us a few hints from practical experience which would be applicable to our own profession.

Here it is, in Van's own words:

"Our mixing panel, while embodying several features of our own design which incorporates many features of extreme flexibility, serves the same chief purpose as all mixing equipment in general. Its chief function is to permit the use of multiple microphone arrangement, thereby permitting the 'picking-up' of voice or music over a greater area, or from a greater number of artists or instruments, than is generally advisable with only a single microphone. When several microphones are employed by means of a so-called mixing panel, the blending of the singals from the several microphone circuits is of great importance and is strictly, or should be, in the hands of a trained engineer. However, *the engineer should not sit at his controls and constantly turn and twist the volume control dials in order to control the shading of the renditions. This steals the individual interpretation of the vocal or musical selection away from the artist or musician, and places same within the hands of, not an artist, but an engineer (very good or very bad).* The interpretation of any selection is a matter for the artists to follow, the engineer or mixing control operator naturally has certain limits within which he must keep his volume. This applies to radio broadcast or any type of talking motion picture system, *but —outside of that, twisting of the dials and shading of the selections by the technical man is nothing short of 'robbery'* as applied to the artistic interpretation of a vocal or musical selection. If anyone is skeptical, please be fair—*take a listen,* and *compare!*"

Thanks, Van, I hope some of the boys on the sound stages will take the hint.

Modern Camera Factory

We have received a lot of favorable comment lately on the series of pictures appearing on the back cover of our magazine showing graphically the progress being made from month to month on the new factory building of the Mitchell Camera Company. By October 1, this famous concern will be installed in the new plant located at 661 Robertson avenue, in West Hollywood.

The building has a 100-foot frontage on Robertson avenue with a depth of 240 feet. The plan, drawn by the Truscon Steel Company, is for two stories. A third story is to be added at a later date.

The building is to be of the "daylight" type, being built entirely of concrete, steel and glass.

An outstanding feature of the structure is the floor, which is entirely of end-grained wood blocks set in concrete.

Keeping step with modern factory practices, the Mitchell Company are dispensing with line shafts for the operation of power machines. One hundred and twenty electric motors will provide individual power for each machine in the plant.

The building will cost in the neighborhood of $60,000 and will be 100 per cent earthquake and fire proof.

Hollywood can well be proud of this plant as it will be the largest factory in the world manufacturing exclusively standard professional motion picture cameras.

———o———

Film Art Installs Sound Equipment

Stanley De Lay, general manager of the Film Art studio, at Occidental boulevard and Council street, has installed one of the finest modern sound recording equipments now available for independent producers on the West Coast. The new process uses the Western Electric wax recording system, and has contracts with the Victor Talking Machine Company to make their records here in Hollywood.

The company has installed two large, well ventilated sound booths which allow the use of any type of camera for recording.

———o———

Joe Walker is still wrapping them up quick for Columbia Pictures, thereby making Harry Cohn laugh because of the many hours of overtime.

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Talkies in Color

By JOHN W. DES CHENES

Sound—or color? Or both?

Will one survive the present era in which producers are fighting frantically to supply Mr. John Public and family with a cinema "kick"? Will the other fade into the inglorious background of oblivion? Or can the two be successfully synchronized so that J. P. will settle back into his overstuffed theater seat and say, "That is what I have been wanting right along and didn't know what it was."

Whatever the answer—this much is evident: Producers are beginning to display a healthy interest in color cinematography. Maybe they have discovered, like the man who found a mixture of Gordon's and Grenadine more to his liking, that sound pictures will go over better with a "color chaser."

The Max B. Du Pont Vitacolor Corporation, through its general manager, Harold S. Ryerson, announces this month that two of Hollywood's principal studios have commenced competitive bidding for the Vitacolor method of producing motion pictures in natural color.

This process was viewed with amazement recently by members of Local Union No. 659 and an account of it was carried in the first issue of the "International Photographer." It is only necessary to state in recapitulation that Vitacolor appears in every way ideally suited to professional needs.

The process does away with the expensive and laborious dye method, requiring only color disks for camera and projector; it necessitates no more than normal time exposure, a big improvement, and its taking speed fits in nicely with the synchronization idea.

Of the other processes available, Technicolor's "Redskin" is said to be meeting with success on both coasts. "The Viking," which has not yet been released, is done in color by the same method. Multicolor's recently produced one-reel subject, "Tam-o'-Shanter," is on its way to find a release in New York while this company plans further pictures along the same line.

There is no doubt of it, producers are looking up to color cinematography with far more interest than they have heretofore evinced. Whether there is frantic appeal in their beseeching gaze or merely curiosity remains to be seen.

Palmer Represents Industrial Men

Brother James R. Palmer, former steward of the San Diego territory, has been elected to represent the Industrial Cameramen on the Board of Executives of Local No. 659.

Palmer has given the Industrial situation a great deal of thought, and is rapidly working out a solution to the intricate problems with which these workers are confronted.

Now that the studio situation is rapidly being cleared up, the board is preparing to devote more time to the problems of the News and Industrial men throughout the West.

Since leaving Hollywood three years ago, Brother Palmer has been in close touch with various phases of the Industrial business, and has a keen insight of their working conditions in our jurisdiction.

Industrial cameramen who are members of Local 659, are urged to write to James R. Palmer, 428 Markham building, Hollywood, explaining in full any situations with which they are confronted in their particular territory, which to their belief can be improved by action of the Local representatives.

Co-operation with Brother Palmer in this matter will help him complete his survey which will soon be placed before the governing body.

———o———

Off for Africa

Bob Roberts and George Nogle left last week for Africa where they will join Clyde DeVinna and Dale Deverman on the M-G-M location at Nairobi. They are filming the epic of Africa, "Trader Horn."

With the famous traveling cameramen were Albert Arnold, Eddie Cornwall and Bill Riley, of Electrician's Local No. 37, who will furnish artificial light for the jungle picture.

The company expect to arrive at Mombasa on April 24, and after a two and a half day trip will arrive at Nairobi, 800 miles in the interior. Seven or eight months will be spent filming "Trader Horn" on the African location.

Brother DeVinna, chief cameraman of the troupe, expects to keep in constant touch with the M-G-M headquarters at Culver City, through the medium of the latest model short wave radio sending set with which the company is equipped.



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"THE DAILY GRIND"

By RALPH B. STAUB

BEN REYNOLDS, camera ace for Warner Bros. thinks he may have to make a hurried trip to Florida—he received a wire that land was discovered on his property. Ben just completed the recent SOPHIE TUCKER epic.

* * *

JOE WALKER has an invention in the form of a muzzle that covers the cameraman's face and keeps him from sneezing when making sound pictures. Well, since the advent of talking pictures, the cameraman has led a dog's life anyway.

* * *

I see BOB KURRLE is wearing a Puritan hat. Must be the effect of photographing "Evangeline" with Dolores Del Rio.

* * *

IRA HOKE tells me he wears his heavy underwear in winter while shooting talking pictures—to keep his bones from rattling.

* * *

We saw JOHNNY MESCAL at the Rancho Golf Club and stood there admiring him — he has his mother's eyes, his father's nose and his uncle's niblick.

* * *

ARTHUR REEVES tells me he has an assistant with a brand new brain—so far he has never used it.

* * *

Saw ARTHUR EDESON with a beautiful girl—he sure is getting to be a lady killer—he starves them to death.

* * *

SID HICKOX has just completed the camera work on the recent Jack Mulhall-Dorothy Mackaill vehicle. William Beaudine directing.

* * *

CHARLES ROSHER cables me that he met the Prince of Wales while out riding—they both happened to be thrown together.

* * *

TED McCORD is shooting Ken Maynard's new picture. Ted says it's great to be out West where men draw from the hip and women help them drink it.

* * *

ERNIE HALLER is grinding on the new Ralph Dawson picture at First National, with Loretta Young and an all-star cast.

* * *

SOL POLITO is cameraing for Al Santell at First National.

Boyle Talkies Popular

Among the highlights of talking pictures, Mack Sennett's two reel comedies have attracted much favorable comment during the past month.

Real entertainment characterizes these modern laughmakers. The technique of both photography and sound are equal in every way to the most successful dramatic productions.

To John W. Boyle goes the credit for the photography and light effects that have contributed largely to the success of these short entertainments. Ernest Crockett, veteran Sennett cameraman, is associated with Boyle.

The first four of a long series are now on the screen. They are: "The Lion's Roar," "The Bride's Relations," "The Old Barn," and "Whirls and Girls."

—o—

Cameramen Wear Gloves

In the making of scenes for "The Argyle Case," Vitaphone production, now in course of filming at the Warner Brothers studio in Hollywood, it was necessary not only to show fingerprints of the characters being taken in the customary manner, on paper, but also the "bringing out" and photographing of finger marks on furniture in a room in which a murder has been committed.

To insure that this highly technical work is done by the actors in just the correct way, Mr. J. H. Ash, fingerprint expert of Los Angeles, will act as technical advisor.

Cameramen responsible for the photography of the picture are: James Van Trees, Ben Reynolds, Edgar Lyons, Pliny Goodfriend, Ernest Smith, Louis Jennings, Bill Schurr and Carl Meister. Irving Lippman is making the stills.

Warner Bros. certainly are keeping the boys busy these days. Saw a group of ten on the Sophie Tucker set making "Honky Tonk." TONY GAUDIO is cinematographer-in-chief for Alan Crosland on a new all-color all-talkie at Warners.

* * *

HAL MOHR is practicing to walk on his hands so he can line his camera upside down for the new effects Paul Fejos is putting in "Broadway."

* * *

"Hell's Angels" has had so many cameramen to date that they can't remember their names — they call them by numbers now.

"Women Should Organize"

Marjorie Rambeau, in a recent interview with the Minneapolis Labor Review, declared herself in favor of Trades Unions. Miss Rambeau has long been a member of Actors' Equity, and has thousands of friends in the I. A. T. S. E.

Coming from such an authority, her views carry great weight.

"'Trade Unionism is the making of civilization. It's the only thing. It's a protection to employe and employer.'

"'I was one of the first 500 members of Equity,' Miss Rambeau said proudly. Equity is the Union of the stage folks, affiliated with the American Federation of Labor.

"'I want to appeal to the women workers in industry to organize. It would be a great satisfaction to me to think that I could have in any way aided them in seeing the necessity for organization.

"'As an artist, I have learned the benefits of and necessity of Trade Unionism, and I believe it even more necessary that the women of industry should be organized than the women of the stage. It is their only hope to gain that which is rightly theirs but which as individuals they are powerless to obtain and can only hope for through organization,' she said.

"Ask Miss Rambeau who the greatest men in the world are and she will answer without hesitating 'The Stage Hands'. The members of the Theatrical Stage Employes' Union are her pals and boosters. They have no stauncher friend than Marjorie Rambeau."

—o—

First Hundred Years the Worst

There has been so much comment recently on the "hard times," that a few statistics from the business representative of Local No. 659 seem necessary in order to dispel any undue worry.

According to our employment records, over 75 per cent of our membership is now working. This figure is within 15 per cent of the normal working conditions as compiled by A. F. of L. bodies.

Unions as a rule have observed that when only 10 per cent of their membership is on the "swing gang," conditions are considered as ideal.

With our own conditions only 15 per cent below this margin there is no cause for undue alarm among cameramen.

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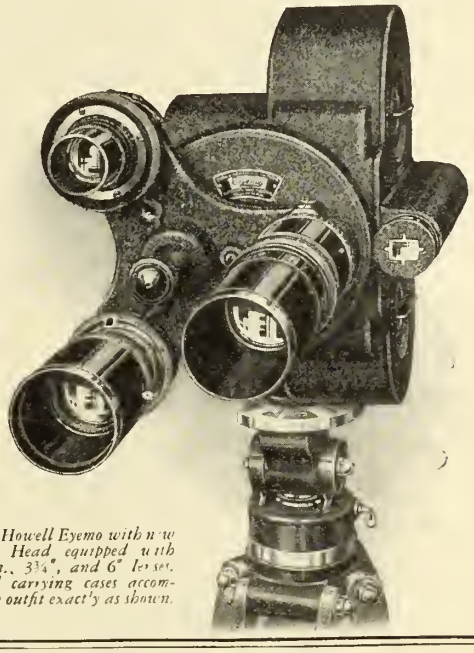
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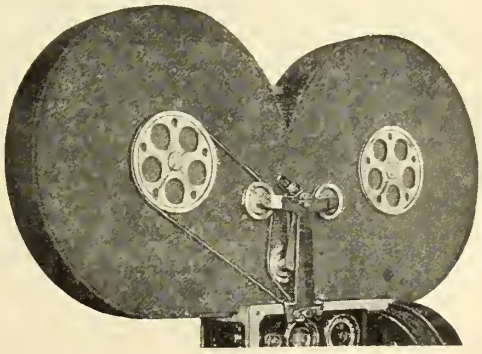
Bell & Howell Eyemo with new Turret Head, equipped with 47 mm., 3¾", and 6" lenses. Special carrying cases accommodate outfit exactly as shown.

A THREE-LENS Turret Head on the Eyemo gives this "ace" of light weight, automatic hand cameras, the adaptability of Bell & Howell studio cameras.

Substantially mounted on the Turret Head are three lenses of varying focal lengths and apertures. A simple twist of the wrist is all that is needed to swing any one of these into instant service.

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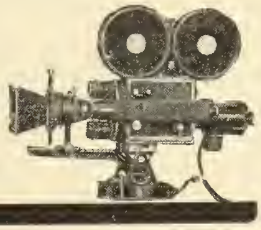
Bell & Howell Sound Recording Cameras and Equipment have been made so silent that some studios do not use a sound-proof booth in operating them. Consultation on standard cameras for sound recording purposes is invited.



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Time Out

Lyman Broening has, in the front room of his newly Ducoed bungalow, a tall grandfather clock which he treasures highly.

Lyman always tells admiring visitors that nobody in the household understands much about the clock except himself, though he insists it is a very good timekeeper.

"It only needs studying a bit," he says. "You see, when the hands stand at 12 and it strikes 2, then I know it is 20 minutes till 7."

———o———

Lewis Physioc addressed the Hollywood Woman's Club last week on the progress of modern sound pictures. Lew said his talk must have been a success, as he saw only one lady asleep.

———o———

Shortest Distance

Bob DeGrasse was doing some photographic art from atop a rather shaky parallel, when Jimmy the grip, had occasion to take the ladder away to patch a prop tree.

"Hey!" shouted Bob, "bring that ladder back. How do you suppose I am to get down?"

"Oh, just shut your eyes and walk about a bit," answered Jimmie.

Sound Stages at Tec-Art

Tec-Art studios have under construction two sound stages each 75x100 feet, which will soon be available for independent producers of sound pictures.

In conjunction with the new stages, three unit recording rooms and two projection rooms are being built.

———o———

Label Baker's Products

So many cameramen have asked for a list of Union-made bread and cake that we are pleased to furnish the following list from Baker's Local No. 37:

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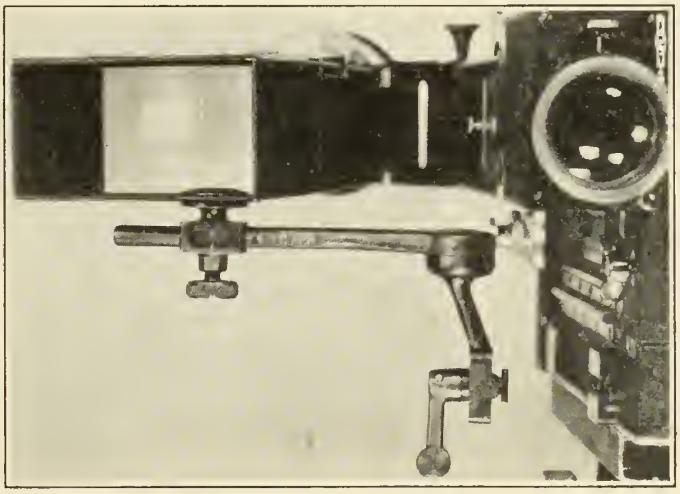
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Sixty Or Seventy-five



The above "itching" shows Bro. "Speed" Hall, assistant cameraman, in action just before snapping into it on the sound stage. At the present time the number of hours he is working, if figured at overtime, etc., would enable him to buy a new suit of clothes, and a wheel-barrow to carry the equipment in. He is under the impression that assistants' services should be paid for by the ton, or piece, as well as on an hourly basis.

Tannura With Pathe

Philip Tannura is now engaged as supervisor of lighting and photography with the Robert Kane Productions. This is a Pathe company, and is working at the Sound studios, 134th street and Park avenue, New York.

Brother Tannura was formerly chief cameraman with the Marshall Neilan Productions at the F. B. O. studios. The last two of a long series which photographed under that banner were "Taxi 13," and "The Last Haul." The completion of "The Last Haul" marked the eighty-sixth production to be photographed by Tannura for F. B. O.

Famous Final Frases

I forgot to swing over.
My lens cap was on.
I thought it was a rehearsal.
Just a minute.

Celluloid Lane

We sure were worried about our very good friend, King Charney, due to the serious effects of his recent attack of influenza. We just stopped in to see him upon his return from Palm Springs, and we are glad to note the old time King himself in his usual form.

While searching madly up and down Celluloid Lane (Santa Monica boulevard) in search of news for the International Photographer, our staff reporter observed a large crowd gathered near the intersection of Las Palmas avenue. Upon the approach of our reportorial staff, Pete Shamray stepped aside disclosing not only himself but Edward Blackburn, Wesley Smith, Bud Courcier, Simeon Aller and George Gibson. From the above facts only one conclusion can be drawn—Kodak and Duco were in conference.

Garmes Makes Jolson Talkie

Al Jolson and Davey Lee are working together again in a new Vitaphone feature to be called "Little Pal."

The picture boasts a big crew of 659 cameramen. Lee Garmes is placing Mazdas to the best interests of all concerned, while the boys in the "bomb-proofs" read as follows: Reggie Lyons, Eddie Kull, Ernie Smith, Louis DeAngelis, Jack Koffman and Carl Guthrie.

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The Cinema Art Service

By Ira B. Hoke



LEWIS W. PHYSIOC

We visited, Lew Physioc, over on the Tec-Art lot, the other day, and got a little surprise when viewing an exhibition of the line of work in which he is now engaged. Physioc has been more often thought of as a representative cameraman and laboratory expert, so that we were surprised to know, as some of the paintings on the walls of his studio attest, that he is an artist of acknowledged ability. Before his entrance into the picture business, he was a scenic artist, and has designed the settings for many of America's most noted stage productions. It is not strange, then, that he should be now combining his knowledge of painting with his ability at the camera. Physioc is engaged in what he calls "matt shots" which enables the producer to make elaborate displays, in the long shots, at great financial saving.



Shows the real, built set with the unfinished portion matted off

The process involves the building of the sets to only a limited extent, matting off, in the camera, the unfinished portion and double exposing, on to this protected portion of the film, a painting of the effects demanded; blending them together so perfectly as to make them appear a single exposure of a complete set.

The value of the process, as compared to the "glass shots," is noteworthy in that it requires very little preliminary preparation such as preparing the set in advance of the shooting schedule, as it requires only a few minutes to prepare the matt and allow the director to reconsider his set-up without any loss of time. It gives the cameraman unlimited freedom in lighting his sets, for the painting is matched to his lighting. On exteriors, any number of shots may be made from the same set-up and the lighting on the painting modified to agree with the travel of the sun.



Represents the matt reversed, protecting the exposure of the real set while the painting is exposed

The process infringes no patents, as it depends entirely on individual skill in combining all the elements. The requirements are reliable apparatus, good draughtsmanship, a thorough knowledge of perspective, and of photographic values, and fortunately these cannot be patented.

The chances of failure are slight, for the reason, that a short test is submitted to the producer who can study it minutely and suggest any modification that does not affect the actual construction of the set; and when the test is finally O.K.'d the production takes are completed.

Mr. Physioc combines these shots with multiple exposures by which he introduces moving clouds, rushing water, blinking night lights and various other natural effects.

The sound pictures or color do not offer any difficulties to the making of these shots, as the mats may be placed in front of the camera shooting color or sound pictures.

The accompanying illustrations show how the results are achieved.

The cuts were made from enlargements of the motion picture film. The shot was used in the Columbia Pictures Corporation's production, "The Blood Ship," and finely demonstrates the value of the process, for there is, at present, no such shipping or character of buildings at the location and conforming to the period of the story.



Both exposures blended and developed together, and appearing as a single exposure



WHERE *THE* Best Pictures ARE MADE

San Francisco Boys Get Break!

Cut Laundry Men's Working Day to 10 Hours on Saturday

SAN FRANCISCO.—Some 3000 Chinese laundry workers were back at their tubs today following a victorious fight for shorter working hours. Before the strike they worked 15 hours a day 7 days a week except for an occasional Sunday when they worked 12 hours. Now they will work 15 hours a day for 5 days, 10 hours on Saturdays and 12 hours on alternate Sundays.

These conditions resemble conditions to be found in some of the studios, and though the Chinese do not belong to the I. A. T. S. E., it shows what can be done when the boys get together.

659 Golf Club?

On Sunday, March 17, the M-G-M cameramen held one of their famous golf tournaments. This is an excellent idea, but why not carry it a little further by instituting a 659 golf tournament, taking in all members of this Local who are adept at the sport.

Bill Foxall, who placed the handicaps on last Sunday's lineup, incidentally won the match. Of course, something should be done about that.

Mazda Lamp Notes

The tungsten waste deposit which blackens the interior surface of gas filled Mazda lamp bulbs is now easily eliminated by a clever dodge figured out by the National Lamp Works of the General Electric Co. About a tablespoonful of abrasive material is inserted into the globe at time of manufacture. Occasionally the electrician shakes the lamp gently thus scratching off the deposit.

See that your lamps are operating at full voltage if your colors fail to register in their proper tone values. Voltage governs color rendition to a high degree because as the voltage is lowered the Mazda falls off more quickly in the blues than it does in the reds. Consequently blue objects will tend to register darker than they normally should.

Brother Robert Turnbull, photographing Paramount Newsreel, arrived in Mexico City on the day the fighting started. By this time Local No. 659 can probably boast a full fledged General among its membership. General Turnbull of Paramount. Not so bad.

Mole-Richardson Light "Broadway"

Mole-Richardson, Inc., pioneers in the design of incandescent lighting equipment for motion picture studios, have completed in record time the largest single order yet placed for this type of equipment.

The bulk of this order has been used on the night club set of "Broadway," soon to be seen on the Universal program. This unique and ultra-modern set is most cleverly designed, and places one immediately on the greatest street in the world, Broadway.

Pete Mole, president of Mole-Richardson, Inc., was called upon to build special lighting equipment to meet the novel plan for photographing the traveling shots arranged by Director Fejos, Cameraman Hal Mohr and Chief Electrician Frank Graves.

Results achieved have fulfilled all expectations. To see this picture on the screen is to realize the skill and ingenuity of those connected with the technique of lighting and photography.

Cecil Be De Mille, president of the Motion Picture Producers' Association, in his radio message to Commander Byrd over Station WBZ-WZBA said in part:

"We of the films are proud of the part the motion picture camera plays in your enterprise. Your film record of exploration will set a new mark for detailed pictorial information and thrilling adventure. Our thoughts and best wishes are with you and your courageous associates as you use radio, plane and movie to enrich the total of human knowledge."

Brothers Joe Rucker and Willard VanderVeer of Local No. 659 are official photographers of the expedition.

Physioc Entertains

At a recent exhibition of the Los Angeles Camera Club, Lewis W. Physioc, proprietor of The Cinema Art Service, entertained members and guests with his technical history film. This film is made up of a series of the various steps encountered in the history of cinematography from its early days up to the present time. It shows graphically the changes in speeds, lighting, make-up and general technique of the camera.

Rucker and Combs Operate Commercial Film Laboratories

Brothers Verne R. Rucker and Lloyd M. Combs are operating Al Graf's new motion picture laboratory at 3664 Broadway, Oakland. This is the largest and finest motion picture laboratory north of Hollywood. They are equipped to handle any type of commercial work from photographing and lighting to delivering and previewing the finished print.

Besides the standard type of film they are also prepared to handle 16 mm. stock and their equipment warrants the very finest service of this kind in the West.

The finest private reviewing room in the bay district is available to customers of this enterprising company.

Synthetic Cameraman

"Why," boasted the young aspirant for a card in Local No. 659, "even before I entered the camera game I did something none of the great movie cameramen ever did."

"What was that?" asked the business representative.

"I was graduated from a school of motion picture photography."

Trueball Tripod Heads



MODEL B

Their use for follow shots assures smooth operation, having an equal tension on all movements. Also, their action is unaffected by temperature.

FRED HOEFNER

Cinema Machine Shop

5319 Santa Monica Blvd.

GLadstone 0243 Los Angeles

Commercial Movietone

Fox-Case is developing a commercial department for the purpose of using sound film in hotels and salesrooms to advance sales talks, etc. At the present time their field is chiefly the automobile industry. Because of the commercial or non-theatrical aspect, the Fox-Case Company intended to, and were, operating this department with non-union operators.

The general office of the I. A. T. S. E. has replaced all such non-union operators with members of our Alliance, under road contracts at the prevailing sound-operating scale of $125.00 weekly, with the understanding that but one operator is necessary to operate the one machine carried. This understanding is in accord with our International Laws: Article 1, Section 22, Clauses D and E, page 34, as the equipment carried consists only of one portable projector with Movietone attachment and sound recording on the film.

———o———

Douglas Fairbanks' latest picture, "The Iron Mask," photographed by Henry Sharp, is breaking all records at the Rivoli theatre in New York. Associated with Brother Sharp on the photographic staff were Warren Lynch, Royal Babbitt and Charles Straumer. Charles Lynch made the stills.

There and Back

John Mescal tells this one on Vernon Larson:

They were about to start on location to Lake Tahoe recently, when John discovered that Vernon was among the missing just as the train was about to pull out of the station. Hurrying back to the waiting room, Brother Mescal was just in time to hear the following loud-speaker conversation at the ticket window:

Vernon (breathlessly): "My company's gone on location and left me behind. Quick! Gimme a round trip ticket on the next section."

Station Agent: "Where to?"

Vernon: "Back here, of course, where-ja-think?"

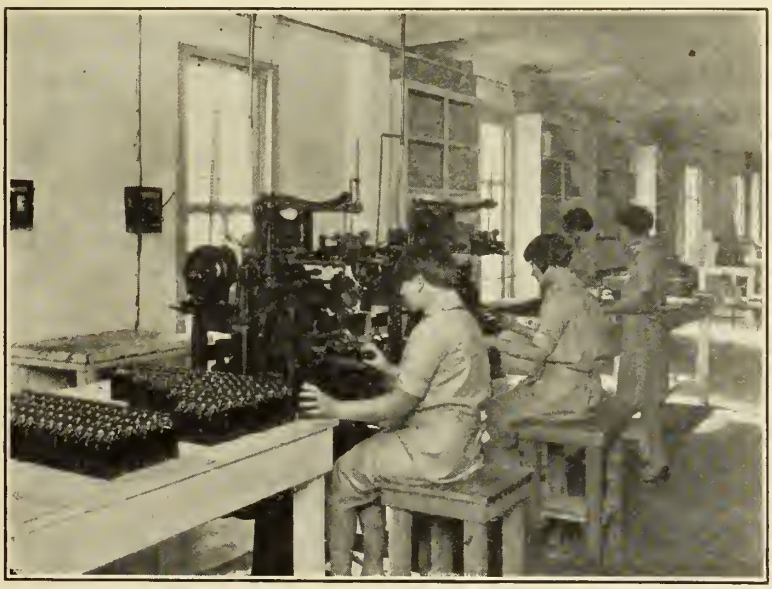
———o———

Sleep On, Pequot

To the Editor of the International Photographer, Special Delivery:

Your article in the February issue, "SLEEP ON PEQUOT," caused a great deal of discussion in our home. My husband, a good Union Cameraman, came home and said that from now on we would have to sleep on Pequot. As we live on Hoover street, I made arrangement to move over to Pico street, when he explained that Pequot was the name of the only 100 per cent Union Made sheets and pillow cases. That is not the half of it. We are sleeping on blankets now, and I wish that you would do something to get this matter ironed out as summer is coming on.

Yours truly,
MRS. X. BACK.



Labeling Department—Max Factor's Make-up Studios

The machinery shown in this picture, is the latest automatic type of labeling equipment, almost human in its accomplishment. The machines gum, place and wipe labels at the rate of thirty or more per minute. Labeling millions of packages every year is but one detail of this marvelously equipped laboratory.

With the Pioneers



Jackson Rose, using the first all-metal Bell and Howell camera in 1912, for the Essanay Company of Chicago. Note the lenses and finder, also the 200-foot magazine. This camera had an 11-foot dissolve. It had no matt box or iris attachments.

———o———

Les Rowley is making still pictures for Dorothy Mackaill. Wm. Beaudine directing.

". . . a color so pure and so beautifully blended that every sensation of life comes as if by magic to the screen . . ."

—From International Photographer for February.

Vitacolor

Max B.

DU PONT VITACOLOR CORPORATION

207-9 N. Occidental Blvd.

Los Angeles, California

Pans and Tilts

Bill McGann, assistant director with the First National picture "Broadway Babies," says the picture boasts an all-star camera crew as well as an all-star cast. His call book shows the following members of Local No. 659 behind the sound cameras: Sol Polito, Eddie Linden, Faxon Dean, Lyman Broening, Bob Mitchell, Milton Krasner, Irving Glassberg and Russell Hoover. The lobby display artist is John Ellis.

* * *

Earle Walker, who wraps up short comedies for Larry Darmour's RKO release, has attracted a great deal of comment up and down Hollywood boulevard by his alleged recent purchase of three elephants from the government of Siam. They were purchased on the installment plan, and Earle intends to rent the elephants to pay the installments. At present the rental department of Local No. 659 is bidding for exclusive lease privileges on the livestock.

* * *

Edwin Carewe's epic of early day Louisiana is being filmed in the actual settings of the story as conceived by Henry Wadsworth Longfellow. Bob Kurrle and Al Green, assisted by Bob LaPrell, are doing the movie photography. John Miehle, still photographer, is responsible for a very beautiful set of 8x10's.

* * *

Christie sound pictures are photographed and recorded at the Metropolitan studios in the new sound stages. These stages are complete in every detail. Gus Peterson, chief cameraman, is being assisted by Bill Wheeler, Alex Phillips, Monte Steadman and Eugene Liggett. Anthony Nagy is in charge of the camera department.

* * *

Brother John L. Herrmann, steward of the San Francisco territory, writes that Fox Movietone now has 31 News trucks in the field.

Brother Norton "Doc" Travis has just received from the Mitchell Camera Corporation one of their newest model cameras equipped with the silent movement for high speed or sound photography. This camera also has the new card attachment.

* * *

James Seebach, photographing Fox Movietone News, tried a quick route to China last week by way of the shaft in the North Star gold mine. After descending about eight thousand feet the heat indicated that he had missed the track and was bound for Hell instead. Jimmy back-cranked in a hurry and returned to San Francisco. He says his next trip to the Orient will be via the China Mail.

* * *

Charles Stumar, assisted by Robert Surtees, is photographing "The House of Glass," for the Universal studios in Berlin, Germany. The next production to go before his camera is "Fallen Angels."

* * *

"Broadway or Bust," an all Vitaphone and Technicolor production, is now being photographed at the Warner Bros. lot. There are so many Local No. 659 members behind the cameras on this picture that it looks like an open meeting. They line up as follows: Tony Gaudio, Frank B. Good. Ed. Estabrook, Willard Van Enger, Jockey Feindel, Arthur Pierson, Henry Cruze, Kay Norton and Lee Davis.

* * *

Brother Eddie Ullman, who is representing the New York Life Insurance Company locally, points out that this company paid out to policyholders and beneficiaries $156,000,000 last year.

* * *

Brother Wm. Holt Dietz has been so busy with his flying matrimonial venture that he has forgotten to give us his new address. Dear Bill: Please send us your present address via air mail.

Out of Focus



A New Idea, Will Save Many Steps

The above landscape shows Brother Harvey Gould and his dog, Nig, going for a load of film. Photographed in action by Newton Hopcraft

The Footo-Phoney is the name of the new device installed at the Fay Dout Studios. This is the result of research work of the Nickel and Dime Department to overcome time lost by assistant cameramen in going for film from the new sound stages to their dark-rooms.

The new thousand foot magazines are so heavy that all the assistants were getting hump-backed, and complained that they were not able to enjoy a game of ball during the lunch hour so something had to be done. Footo-Phoney is the result.

Note the sunshade over head. This was indeed welcome. It is reported that the Footo-Phoney works very well with one exception, at the present time there is no place to put the film. It is understood that the Nickel and Dime Department expect to overcome this oversight very shortly.

Employment Note

First Assistant: Are you working?

Second Assistant: No. I dropped a piece of a chalk in the middle of a 600-foot scene on the sound stage.



When It's Printed in "Variety"

IT MUST BE FACTS

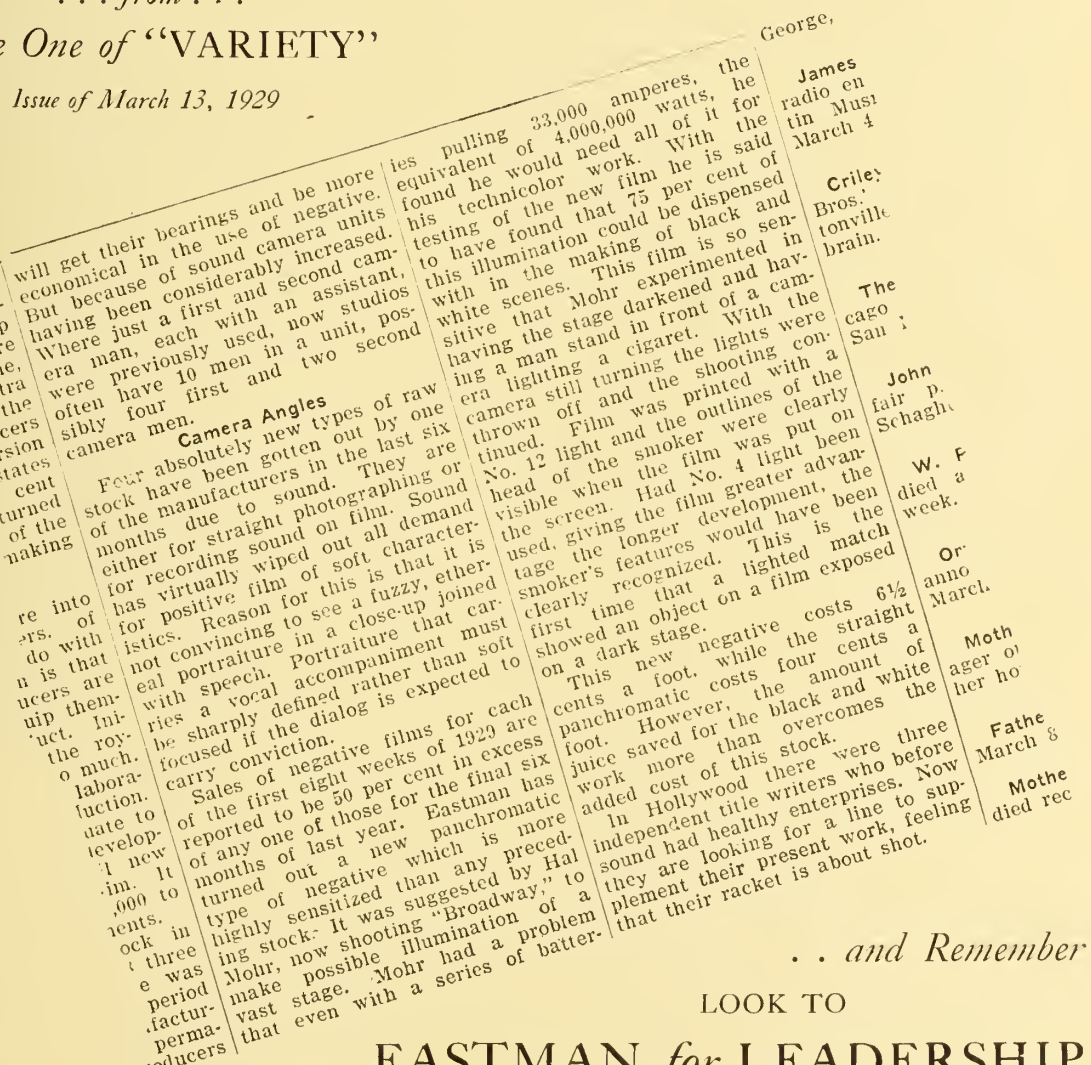
We Reproduce a Very Interesting Story

"WHAT SOUND HAS DONE"

. . . from . . .

Page One of "VARIETY"

Issue of March 13, 1929



will get their bearings and be more economical in the use of negative. But because of sound camera units having been considerably increased. Where just a first and second camera man, each with an assistant, were previously used, now studios often have 10 men in a unit, possibly four first and two second camera men.

Camera Angles

Four absolutely new types of raw stock have been gotten out by one of the manufacturers in the last six months due to sound. They are either for straight photographing or for recording sound on film. Sound has virtually wiped out all demand for positive film of soft characteristics. Reason for this is that it not convincing to see a fuzzy, etheral portraiture in a close-up joined with speech. Portraiture that carries a vocal accompaniment must be sharply defined rather than soft focused if the dialog is expected to carry conviction.

Sales of negative films for each of the first eight weeks of 1929 are reported to be 50 per cent in excess of any one of those for the final six months of last year. Eastman has turned out a new panchromatic type of negative which is more highly sensitized than any preceding stock. It was suggested by Hal Mohr, now shooting "Broadway," to make possible illumination of a vast stage. Mohr had a problem that even with a series of batteries pulling 33,000 amperes, the equivalent of 4,000,000 watts, he found he would need all of it for his technicolor work. With the testing of the new film he is said to have found that 75 per cent of this illumination could be dispensed with in the making of black and white scenes. This film is so sensitive that Mohr experimented in having the stage darkened and having a man stand in front of a camera lighting a cigaret. With the camera still turning the lights were thrown off and the shooting continued. Film was printed with a No. 12 light and the outlines of the head of the smoker were clearly visible when the film was put on the screen. Had No. 4 light been used, giving the film greater advantage the longer development, the smoker's features would have been clearly recognized. This is the first time that a lighted match showed an object on a film exposed on a dark stage.

This new negative costs 6½ cents a foot, while the straight panchromatic costs four cents a foot. However, the amount of juice saved for the black and white work more than overcomes the added cost of this stock.

In Hollywood there were three independent title writers who before sound had healthy enterprises. Now they are looking for a line to supplement their present work, feeling that their racket is about shot.

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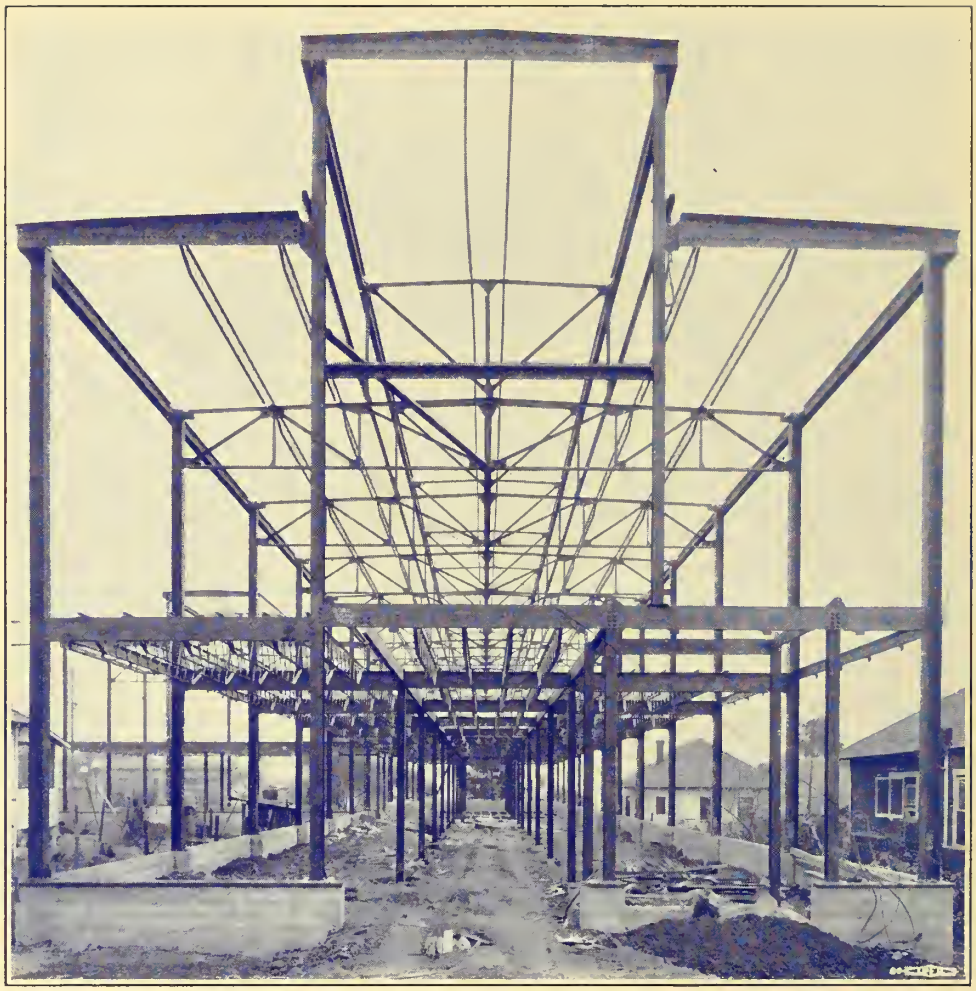
LOOK TO

EASTMAN *for* LEADERSHIP

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Edward O. Blackburn, Vice-President

HOLLYWOOD



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Hollywood, California

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INTERNATIONAL PHOTOGRAPHER

HOLLYWOOD



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A bulletin has been prepared, containing complete technical information regarding these new sound films—a copy will be sent to you upon request.

"THE DU PONT TRADE MARK HAS NEVER BEEN PLACED ON AN INFERIOR PRODUCT"

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Smith and Aller, Inc.

Pacific Coast Distributors

1056 North Cahuenga Ave. HO. 5147

Hollywood, California

The INTERNATIONAL PHOTOGRAPHER

Official Bulletin of the International Photographers of the Motion Picture Industries, Local No. 659, of the International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators of the United States and Canada.

Affiliated with
Los Angeles Amusement Federation, California State Theatrical Federation, California State Federation of Labor, American Federation of Labor, and Federated Voters of the Los Angeles Amusement Organizations.

Vol. 1 HOLLYWOOD, CALIFORNIA, MAY, 1929 No. 4

"Capital is the fruit of labor, and could not exist if labor had not first existed. Labor, therefore, deserves much the higher consideration."—Abraham Lincoln.

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The INTERNATIONAL PHOTOGRAPHER published monthly by Local No. 659, I. A. T. S. E. and M. P. M. O. of the United States and Canada

HOWARD E. HURD, *Publisher's Agent*

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Entered as third class matter February 13, 1929, at the Post Office at Los Angeles, California, under the provisions of Section 435½ Postal Laws and Regulations. Permit No. 1997

Subscription Rates—United States and Canada, $2.00 per year. Single copies, 20 cents

Office of publication 428 MARKHAM BUILDING, 6372 Hollywood Boulevard, Hollywood, California. HEmpstead 1128

The members of this Local, together with those of our sister Locals, No. 644 in New York, No. 666 in Chicago, and No. 665 in Toronto, represent the entire personnel of photographers now engaged in professional production of motion pictures in the United States and Canada. This condition renders THE INTERNATIONAL PHOTOGRAPHER a voice of an *Entire Craft,* covering a field that reaches from coast to coast across the nation.

Announcement

THIS, the May Issue of THE INTERNATIONAL PHOTOGRAPHER, official bulletin and magazine of The International Photographers, Local No. 659, presents to our readers and to the membership a new Editor, Silas Edgar Snyder, until recently Editor-in-Chief of the *American Cinematographer* and general manager of the A. S. C.

Mr. Snyder needs no introduction either to the industry, to the Cameramen or to the leading men of the industries allied to motion pictures, he having a background of fourteen years' honorable service as a motion picture publicist and editor and he probably is able to call more cameramen by their first names than any man in the industry.

With a fine record as a newspaper and advertising man as well as motion picture press agent, Mr. Snyder came to the cameramen some seven years ago with the task before him of building their house organ, a small four-page paper, into a magazine. This he did in a comparatively short time, resigning its editorial management to join the Rockett-Lincoln Film Company as director of publicity.

A connection with First National followed this and, in 1927, he was called again to take over the editorial management of the *American Cinematographer*, succeeding Mr. Foster Goss, resigned.

Under Mr. Snyder's direction that publication won international recognition as a technical magazine and he comes to THE INTERNATIONAL PHOTOGRAPHER with the good will not only of his former employers, but of the large clientele who have followed his work and who will wish him a notable career in his new and larger field.

Our new Editor was chief-of-exploitation and director of publicity of the Jamestown Ter-Centennial Exposition where he was awarded a gold medal for valuable services rendered, but Hollywood as a community and the motion picture industry in general will best remember and be grateful to him for the book "Can Anything Good Come Out of Hollywood," of which he was the originator and also co-author with Director of Publicity Laurence L. Hill of the Security Trust and Savings Bank.

This book was the first serious attempt ever made to combat that campaign of vilification against Hollywood and the motion picture industry which was loosed by the press in the early twenties and the book was pronounced to be one of the finest bits of community service ever performed by private individuals in Southern California.

Mr. Snyder is an Honorary Member of the International Photographers; a charter member of the Wampas and of the Hollywood Lions Club and a Fellow of the Theosophical Society of India.

Brothers Ira Hoke and Arthur Reeves who, in their respective positions as Editor and Advertising Manager, organized and so successfuly launched THE INTERNATIONAL PHOTOGRAPHER, will remain to assist the Editor during their hours of leisure from the duties of their professional work.

Mr. Hal Hall, late of the Hearst newspapers, succeeds Mr. Snyder as editor of the A. S. C. magazine and general manger of the Society.

HOWARD E. HURD.

Readjustment

THE biggest story in the history of motion pictures remains untold.

The biggest thing in the way of industrial readjustment since the beginning of the industry is all but consummated, and it has been accomplished with less flourish of trumpets than that which attends the inauguration of the baseball season—far less.

It is the industrial miracle of the ages and will probably remain the wonder of wonders for many years—this switch-over of the motion picture industry from silent to sound photoplays.

For this tremendous achievement has directly affected every interest, every individual, every element, every department in any way whatever associated with the production, distribution, exhibition of motion pictures throughout the world; but the initial work of re-adjustment was done in America with its major activities centering right here in Hollywood.

Everybody has had a part in this amazing transmogrification, from the Wall Street magnate to the fan in the box-office queue and yet how few people really have appreciated the true import of the overturning they saw going on around them. Here was one of the largest, most important and most vital industries in the world, involving directly and indirectly billions of dollars, changing its methods of doing things almost completely within the lapse of a few months and without any very serious interruption of the operation of its machinery while it sold its new product to the public.

And the greater miracle is that we have the spectacle of thousands of artists and operatives—cameramen, engineers, designers and builders, writers, editors, technicians of all grades, equipment manufacturers, exhibitors, etc., literally making themselves over to meet the new conditions and, be it to the everlasting credit of the cinema, most of them succeeded in educating themselves to conform with the new conditions and requirements. It has been a revelation to all engaged in the fabrication of motion pictures.

Everything was new—financing, story-telling, the editing of film, the designing of sets, the building and arrangement of stages, lighting equipment, quality of film, lenses, production methods, direction, dramatic action, exploit-

ation, exhibition, projection—everything and everybody was involved, but most of all the photographer, for the camera is the *sine qua non* of the cinema, the fulcrum upon which the entire institution turns.

The cameraman found himself suddenly confronted with problems he had never dreamed of and the manner in which he challenged the new conditions and so quickly overcame them is one of the most remarkable development of this stupendous drama of readjustment.

It was up to the camera. If that failed what use to bother with the rest. The sound engineer had his work cut out for him. He had no new worlds to conquer, but the cameraman with a quarter of a century of achievement in pictures to his credit found his scheme of things overturned in a day—even the beauty that he had labored long and painfully to put on his film and which did so much to popularize pictures and to set the cinema upon a solid economic foundation, was placed in jeopardy.

But he was not alone. The manfacturers of equipment and supplies of all kinds rose to the occasion; the research laboratories began to burn the midnight-oil; every brain that could contribute anything to the general stock of knowledge bearing upon the new conditions was called to action and, in a time so brief that the world of technical men will never cease to wonder at it, the talking-sound photoplay was a fact—not what it will be in the fullness of time—but a thing to challenge the admiration of all who can truly say they know the cinema inside and out.

It is likely that only the financial heads of the several large units that constitute what is called the motion picture industry know the stupendous sum involved in the bringing about of this colossal re-adjustment and yet, in the very midst of the period of over-turning, we have the spectacle of gigantic mergers and new financial combinations within the industry.

From all these things we deuct that there must be a wonderfully fine spirit within this institution. There must be in it a tremendous vitality and a basis for substantial growth that cannot be shaken. There must be in it a vision that looks far into the future and that sees there a glory of service to mankind far beyond the dreams of us humble workers in the ranks and, therefore, it must be a good thing to be an integral part of this great world institution and to share in its triumps, its glory and that prosperity which is sure to accompany service well performed in the interests of a grateful humanity.

Let no man look ahead and say: "See how far we have to go!" Let him rather look back and say: "See how far we have come in so short a time!"

In this amazing drama of readjustment the cameraman occupies a place unique and admirable. His glory will not depart as the years go by. He has been loyal, modest and faithful to his trust, reflecting credit upon the industry and ever pioneering to bring about better things. He has been "faithful over a few things." He will be "ruler over many things," for such is the law.

To his employers and to his brother artists and craftsmen he makes a gesture of whole-hearted co-operation—for in union there is strength, and what is good for one is good for all.

The sword is great; the pen is greater, but *"Camera suprema est."*

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You will find in this assortment a lamp to meet every problem and a means for obtaining any desired light value.

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The Sound Track

Important!

Representatives of the ten major producing companies, signatories to the Studio Agreement with the International Alliance, and Local No. 659, I. A. T. S. E. & M. P. M. O., have completed negotiations for the establishment of a wage scale and standardized working conditions. Written copies of the conclusions reached have been forwarded to the two committees for ratification. Advice from President Canavan regarding the establishment of these conditions is momentarily expected.

General Meeting

The date of the next general meeting will be announced by postal card.

Change of Address

Notify the Local office immediately of any change in your address or telephone number.

Location Notice

Members leaving town on location must notify the Local Office as soon as they know definite details of the intended trip.

No. 37 in New Home

The Studio Mechanics Alliance, comprising Studio Stage Employees No. 37, I. A. T. S. E. and Electrical Workers No. 40, have moved their headquarters from 8111 Santa Monica boulevard to 6472 Santa Monica boulevard.

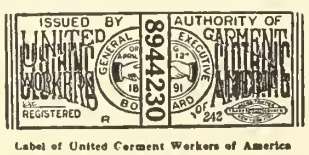
The Locals now have more commodious quarters with a general assembly room on the ground floor and the general and executive offices on the second floor.

The new phone number is HOlly 6161.

Top o' the Hill

At Willards, "Top o' the Hill," 9625 Pico boulevard, where they serve those far-famed Chicken and Steak Dinners, the personnel is One Hundred (100%) Per Cent UNION. It is an attractive place and both food and service are unbeatable in the metropolitan district of Los Angeles. Drive out sometime.

Look For This Label



Label of United Cerment Workers of America

On all ready-to-wear clothing you purchase. It is your guarantee that clothing so labeled has been made under sanitary conditions, by expert artisans.

Stick a Pin Here

First cameramen and asssitants entering a foreign jurisdiction under Inter-Local regulations are required to report their entrance into such jurisdiction to the Local immediately upon entry, deposit the Local card and obtain a permit.

While there are but very few non-union cameramen of the motion picture craft in the United States or Canada, it is advisable to be constantly alert and demand presentation of the card of every man on your location, whether it be domestic or foreign. If the cameraman cannot produce credentials this fact should be communicated to the business representative of the nearest I. A. T. S. E. Local without delay.

Failure to comply with this routine will subject the cameraman and his assistant to charges, jeopardizing his card in the organization.

These requirements are, of course, intended to preserve the very foundation of our respective organizations and it is to the interest of the individual that he comply with them both in letter and spirit.

Your Job

Garment Workers No. 125 and Garment Cutters No. 36 have been circulating some more of their neat advertising in behalf of the firms that employ them in this city, which is a boost for their Label, and other labels as well. On the first page of a four-page little folder they say:

"Your job! Are you giving jobs to others by purchasing goods made at home"? On pages 2 and 3 they give a list of what can be purchased in Los Angeles carrying their Label, and made by the firms, under the caption of "Keep the Garment Workers of your city employed by purchasing goods listed in this folder," as follows:

Shirts—Boss (Work Shirts), Country Club Blouse, Hendan, Merit, Outwest (Wool), Palmdayl, Avalon, Stronghold (Work Shirts).

Night Shirts and Pajamas—Hendan, Outwest, Palmdayl.

Athletic Underwear — Hendan Shorts, Merit Shorts, Palmdayl Union Suits and Shorts.

Wool Trousers—Up-Towne.

Play Suits—Slip-On-Kids, Stronghold.

Corduroy, Khaki and Work Pants—Boss, Carhartt, Stronghold.

Leather Coats and Mackinaws—Boss.

Overalls and Coats of All Kinds—Boss, Carhartt, Stronghold.

Mechanic Suits—Boss, Carhartt, Stronghold.

On the back page, under "Emblem of fair wages and conditions," appears the Garment Workers' label.

Union Periodicals

Brother Maurice Hall is the official subscription representative of The Los Angeles Citizen which is the weekly bulletin of Union happenings, and Brother Hall assures us that if subscribed to will prove intensely interesting to members of Local No. 659.

Besides representing the Los Angeles Citizen, Brother Hall will place your subscriptions for any Union made magazines. Call him at either GLadstone 4203 or HEmpstead 1128.

Dr. G. Floyd Jackman
DENTIST
Member Local No. 659
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Multiple Exposures
TEC-ART STUDIOS
5360 Melrose Ave. Telephone
Los Angeles GRanite 4141

ROY H. KLAFFKI
Now Photographing Vitaphone Productions
Warner Bros.

M. HALL
Assistant Cameraman
GLadstone 4203 HEmpstead 1128

MELROSE
Trunk Factory
UNION MADE Camera Cases for UNION CAMERAMEN
UNION MADE Camera Number Boards
Trunk and Luggage Repairing Our Specialty
Automobile Trunks, Sample and Make-up Cases to Order
GLadstone 1872 646 N. Western
LOS ANGELES, CALIF.

In Memoriam



OUR BROTHER

E. BURTON STEENE

January 30, 1883—April 21, 1929

"There is no death;
What seems so is transition;
This life of mortal breath
Is but a suburb of the life Elysian
Whose portal we call death."

International Photographers of the Motion Picture Industries. Local No. 659

With His Fathers

In the little chapel at Hollywood cemetery, in the cool twilight of the beautiful California day, Wednesday, April 24, 1929, and surrounded by many sorrowing friends, the mortal remains of E. Burton Steene were laid to rest with his fathers.

A profusion of floral offerings, beautiful tributes of love for the departed and sympathy for the sorrowing widow and relatives, covered the casket and surrounded the bier.

The impressive ceremonial of the B. P. O. E., under whose auspices the services were held, was supplemented by a discourse on the subject of eternal life spoken by the minister in charge.

A host of his brother cameramen and fellow studio workers were present to bid a silent farewell to their happy coworker of other days and many were the tributes paid to his ability and fine character.

THE INTERNATIONAL PHOTOGRAPHER joins the host of sorrowing friend in their gesture of sympathy to those who mourn the passing of our friend and brother.

A. S. C. Elects

At a special meeting of the A. S. C. on Monday, April 15, the newly elected board of governors organized by electing the following named officers:

John Seitz, president; Victor Milner, vice-president; Alvin Knechtel, second vice-president; Arthur Miller, third vice-president; Charles G. Clarke, secretary; Fred Jackman, treasurer.

New Viewing Filter

By DR. WHITE
Physicist Redpath Laboratory

With orthochromatic film, cameramen frequently used some form of blue glass viewing filter to aid the eye in judging brilliance contrast as the film would record it. The scene thus viewed, almost reduced to a monotone, gave a close approximation to the picture finally obtained since the sensitivity of the orthochromatic film is predominantly in the blue and blue green. Reds and greens as photographed appeared dark and also appeared dark viewed through the blue glass viewing filter. However, good as this was, in extreme cases it was not accurate since the sensitivity of such film extends into the ultra violet where the eye is insensitive.

With panchromatic film the blue glass is no longer applicable, but should be replaced by a viewing filter which aids the cameraman and costumer to see the scene with the brilliance contrast which the camera will record. Since the advantage of panchromatic film from a point of view of color rendition is its wide range color sensitivity, it follows that such a viewing filter can not render the scene as a monotone and be even approximately correct. It must show blue to red since the film is sensitive from blue to red. Most people are not used to judging brilliance as independent of color. In some cases, the judgment is difficult, but it surely is easier the more closely the scene, as viewed, approximates the relative brilliance values that will be recorded by the film.

A good viewing filter will help in the pictures where a correction filter over the lens is desired. If the viewing filter is accurate, viewing the scene through it and at the same time through the correction filter contemplated will give an idea of the correction introduced and can aid in the selection of a filter to secure the desired result.

The DuPont viewing filter, designed primarily for DuPont panchromatic film seems to be a very satisfactory approximation of the ideal filter for that film.

Lewis W. Physioc

THE INTERNATIONAL PHOTOGRAPHER has the honor to announce the addition to its editorial staff of Mr. Lewis W. Physioc of Hollywood, who will henceforth act as technical editor of this publication.

Mr. Physioc is distinguished by possessing a wonderful background of service in motion pictures and he needs no introduction either to the industry or to the photographic world outside of it.

As an artist, writer, technical expert and mechanical scientist, his standing is high and THE INTERNATIONAL PHOTOGRAPHER feels that congratulations are due it for securing the services of Mr. Physioc.

Archer at Warners

FRED ARCHER is in charge of the portrait gallery at Warner Bros. Sunset studios. Fred has just received from Brooklyn, N. Y., his pictorial exhibit sent there for competition. As usual he scored some winners. The International Photographers, Local No. 659, will match its pictorialists against the world.



Walter J. Van Rossem
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HOlly 0725 6049 Hollywood Blvd.
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Jackson Rose Alvin Wyckoff
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Ira B. Hoke
GR-5033 HE-1128

Roy Davidge Film Laboratories
An exclusive "Daily" Laboratory
Individual Service
6701 Santa Monica Boulevard
HOllywood 1944

An Automatic Timer

By Ira B. Hoke



LEWIS W. PHYSIOC

An important announcement is made by the Technical Research Manufacturing Corporation, a concern organized for the purpose of developing new devices to meet the demands upon the technical departments, resulting from the rapid developments in the motion picture industry, especially since the introduction of the sound pictures.

The officers of the company are: President, Delmar A. Whitson, electrical engineer; Vice-President, Lewis W. Physioc, motion picture technician; Treasurer, Otis R. Jackson, financier; Secretary, Thomas Shields, Los Angeles business man; Attorney, Theodore Martin; Patent Attorney, John Flam.

Offices of the company are in the Great Republic Life Building, Suite 1001, 756 South Spring Street.

This company has just completed and installed in the Bennett Laboratories, where it may be inspected, the first device of their program, an automatic timer, under the trade name of "Gammeter," the same being covered by letters filed in the United States' Patent Office.

The machine is designed to give a direct reading of motion picture negatives, for printing, without the expenditure of time and material in making preliminary tests and is independent of the fallibility of human judgment in selecting printing lights from the tests, as at present employed.

Exhaustive tests have been made, over a period of months, using every degree of density and contrast produced in the ordinary day's work and the machine has shown an accuracy that would permit of a much greater density control than is now provided for by the present day printers.

Following are some of the claims for the device and answers to many questions that have been asked.

No waste of film in making preliminary tests.

Saves that time necessary to develop, dry and read these tests.

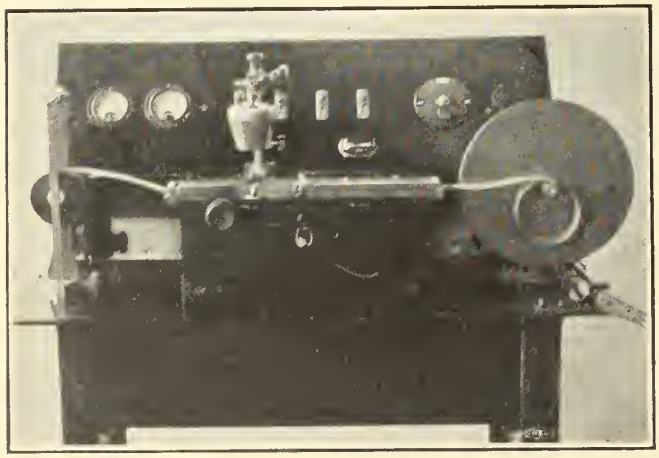
Makes the negatives available for printing hours sooner than present system permits.

The saving of time in the "lab" necessarily means better service to the producer.

Will eliminate guesswork and faulty judgment.

Will furnish an absolute standard and enable the "lab" to adhere to that standard.

Can indicate accurately how this standard may be modified to suit the tastes of discriminating cameramen, where more softness or contrast is desired.



Front view of Gammeter

Will time a sound track very accurately and furnish a means of checking the development "gamma," upon which good recording so much depends.

SOME QUESTIONS ANSWERED

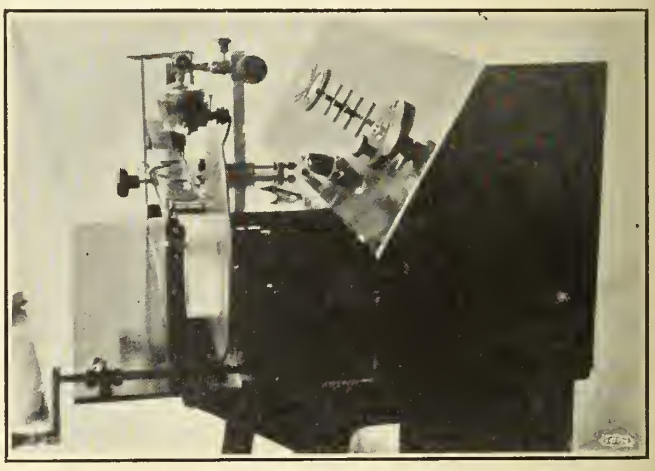
Q. What happens if a roll contains scenes that are too contrasty or too soft in comparison with the rest of the roll?

A. Laboratory economies, at present, do not permit of individual treatment of scenes, especially in release work; balance of density is what is sought and the machine gives this balance. If individual treatment is demanded, the machine will immediately disclose any wide diversity of contrast.

Q. What about night shots and special effects?

A. If such scenes are properly exposed, the machine will read them accurately: if improperly exposed, the machine will still give a proportionate density of print.

Q. What about scenes, on exteriors, having a broad area of sky?



Side view of Gammeter

A. The machine provides for a selection of that portion of the picture most desired, such as close ups and the desired areas of the long shots.

Q. What of running shots where there is a change of exposure from one point to another or a change of speed?

A. The machine will indicate every variation and the proper portion selected for printing, obviating the errors that frequently occur, in the present system, when the wrong part is chosen for testing.

Q. What about titles, where a single word is surrounded by a large area of almost clear celluloid?

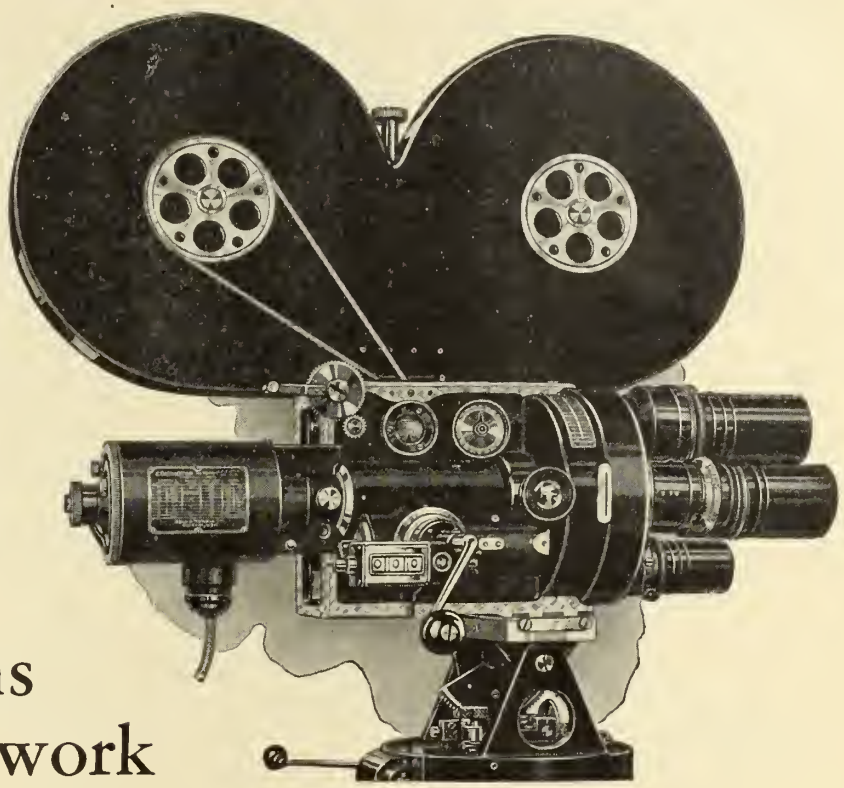
A. The machine is provided with a compensating screen that brings such titles within the proper printing range.

Q. Suppose a cameraman wishes his stuff timed more softly or contrastily than provided for by the "lab's" general routine?

A. The machine can be independently set for softer or harder prints, both the denser or thinner negatives receiving the increase or decrease of light in the proper ratio, an improvement over the present system where the printing lights are merely added or subtracted by a number of points dictated by judgment; the error being, by the old method, that the dense negatives may not receive enough additional light and the thin ones too much.

The machine is provided with a quick shift from the picture aperture to the sound track. It is, also, fitted with various controls and adjustments simply and easily handled that enable the operator to maintain all the conditions, check them frequently and secure an absolute standard at all times.

Bell & Howell Silent Professional Standard Camera



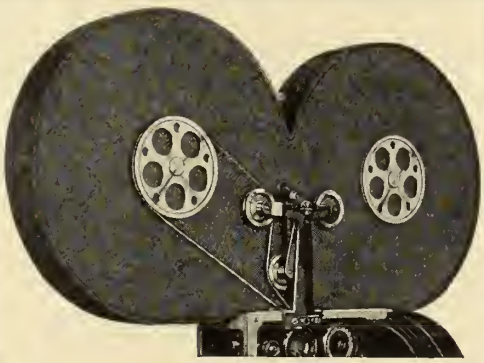
BELL & HOWELL

Silent Standard Cameras

need no booths for sound work

FULL camera freedom can be enjoyed in sound work by using Bell & Howell Sound Recording Cameras. The precision for which Bell & Howell products have been noted during twenty-two years of camera building, has produced sound recording equipment that completely eliminates all mechanical sounds. These cameras are frequently placed within eight or ten feet of the subject *without needing the protection of an interfering camera booth!*

Silencing of the camera mechanism has been accomplished by replacing steel gears with fibre gears where necessary, by the use of solid bronze bearings and by the elimination of all lost motion. Camera interiors and shutter blades have also been dampened by sound absorbing felt linings. A further feature of Bell & Howell sound recording equipment is the Sound-Proof Magazine with Silent Belt Tightener. An endless fabric belt is automatically kept at a proper tension for the uniform take-up of exposed film on rolls of any size. Complete silence of the magazines is assured by a number of holes drilled in the back and cover to interrupt sound waves, and by a complete outside covering of quarter-inch sponge rubber.



Bell & Howell 1000 ft. Sound-Proof Magazine with Silent Belt Tightener.

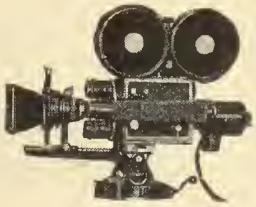
These details indicate the care with which Bell & Howell engineers have met the conditions necessary to produce sound pictures without limiting the mobility of the camera. Consultations are invited on Sound Recording Installations.



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New York, 11 West 42nd Street · · · Hollywood, 6324 Santa Monica Blvd.
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No. 659 Golf Tournament

Reggie Lanning, Bill Snyder and Bill Foxall are engaged in promoting suitable links and general arrangements for the Local No. 659 Golf Tournament to be held soon.

The trio has been instrumental in the promotion of many successful golf tournaments among Cameramen of the M-G-M lot and their agreement to manage the 659 affair assures its success.

GAWLF BAWLS

A man don't have to be crazy to play golf—but it helps.

Nowadays one can find more prominent people in a sandtrap than they can in a bank.

Forget your interlock and lenses for a few days and practice up on your golf—because you'll have to show three past score cards as well as three signatures of members of our Local signed to these cards in order to participate in this tournament. Cards must be on 18 hole course.

This tournament is to be held on a Scotch golf course where they have a sign that reads: "Members will please refrain from picking up lost balls until they have stopped rolling." Gordon McLean please note.

Demand the Label

When you demand the Union Label on the product purchased, the act not only protects you from inferior articles, but you protect the artisan who made that product by increasing the demand for Union Made goods just that little bit.

Tec-Art Is Ready

With the first of May Tec-Art will have completed its two sound stages now under construction, and will immediately go into action with two companies producing simultaneously, according to Al Mannon, president.

The stages are designed and being built by H. Kirk Kellog, who also designed the sound stages for United Artists and RKO. Each stage is 75 by 100 feet and will have every up-to-the-minute facility. So far, no system of recording has been decided upon, but it is believed that four types of sound reproduction will be used in order to accommodate the desires of numerous independents who lease space at Tec-Art.

The two new sound stages are in addition to three silent stages which have a floor space of 30,000 square feet.

Tec-Art is the largest studio in the world catering to independents. Office space rentals and stage use options are near capacity, and with the demand of the smaller independent for use of recording apparatus, it is probable that work will begin in the near future on another sound proof stage.

Companies who now lease offices at Tec-Art include Chesterfield Productions, International Productions, Smitty Comedies, Inspiration Pictures, Edwin Carewe Productions, Fontaine and Davis (De Moraes) Productions, Technicolor Productions, Burr and Hines Enterprises, Burton King Productions, Qualitone Productions, Hollywood Voice and Screen Test Syndicate, Cinephone Corporation, Vita-vox Pictures.

PANCHROMATIC MAKE-UP

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The first major step toward the standardization of make-up. It will eliminate the use of gaudy, useless colors.

Panchromatic make-up is used in every studio, and its success is an outstanding achievement.

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The Hollywood Mocking Bird

By SILAS EDGAR SNYDER

My friend Jerry, the Mockin' bird,
Is the finest singer ever heard;

See him up in the old palm tree
Turnin' flip-flaps as he trills high C:

Mate nestin' there in the ivyvine,
Listens enchanted and thinks he's fine.

Night and day Jerry does his stuff.
Never gets weary, hoarse nor rough;

Ideal daddy and loyal mate,
Good to his folks and affectionate:

A matchless artist, bless his heart,
In God's great plan he has his part:

Needs no composer nor band of strings;
God wrote the music that Jerry sings;

And maybe that's why when I hear his trills
Touchin' my heart and soul with thrills.

I feel that the Mocker's friendly call
Means it's not such a bad world after all.

Says Arthur Brisbane:

On Wednesday, at Daytona, Fla., Mr. Bible, trying for a new automobile speed record, was instantly killed when his car was going 202 miles an hour.

The crowd stood well back, watching the race, but Charles Traub, grinding a newsreel camera, knew it was his duty to show the machine, traveling four miles a minute, coming head-on. He stood with his camera planted slightly to one side of the straight course. When the driver lost control the car leaped and rolled.

It was too late for Traub to save himself. His dead body was laid out beside that of the driver.

That is the price paid sometimes for news pictures.

Employers of cameramen will find herein something upon which to meditate. The very least they can do is to see that cameramen sent in to film shots dangerous to life and limb are amply protected by insurance. But no picture of whatsoever kind is worth endangering the life of any cameraman no matter how willing he may be to make the shot. The responsbiility is absolutely up to the employer and this should be established by agreement.

I. A. Men With Byrd

Reports of unusual and interesting camera material being obtained by Willard VanderVeer and Joe Rucker, Paramount cameramen attached to the Byrd Antarctic expedition, have just been received by executives at the Paramount studios in Hollywood.

M. P. M. A. A.

At a recent meeting of the Motion Picture Make-Up Artists' Association the following named members were elected:

Board of Governors—Sam Kaufman, Davis Factor, Max Fuerstein, Jack Dawn, Robert Stephanoff, Jack Pierce, George Westmore, Ray Lopez, Jack Pitcairn.

Officers—Ernest Westmore, president; Bert Sutch, vice-president; Niel Berns, treasurer; Guy Pearce, secretary; Al McQuarrie, sergeant-at-arms.

Shafts of Hollywood

Shot by H. O. STECHAN

A leading factor in the make-up of Hollywood — as well as the Nation's femininity—is Max.

* *

Once again the season approaches when summer furs and some're not, that the fair ones appear in.

* *

Having built Egyptian and Chinese theaters, Sid Grauman was recently asked when he intended to erect an Israelite theater. "Aren't they all that?" he countered.

* *

Maurice De Mond, famed Breakfast Club scaramouch, having joined Tec-Art's executive staff, we'll not be surprised to hear of the filming of "M-N-X," in sound, right soon.

* *

"Bigger and Better Hamburgers 15c," over a new Hollywood beanery, proves that our enterprising village keeps pace with Chamber of Commerce advertising in all things.

* *

Members of the local Italian colony earnestly hope that Il Duce will settle the Sago-Spaghetti argument before Bill Heywood Broun of The Nation, loses his job over it again.

* *

Those "in the know" say that De Mille's "Godless Girl" was really a bold young thing who refused to concede the omnipotence of Lord Cecil.

* *

If the pictures make you sick at times it is perfectly safe to take a chance at Warner Brothers Theater. It has an emergency hospital attached. Added evidence of our up-to-dateness!

* *

Since Hollywood gals have become "sockless jerrys," men stand even less chance in the tonsorial parlors along the Boulevard; and it is predicted that hosiers will have to join the farmers in petitioning Congress for relief.

* *

Following the recent demonstration of Televox, the electrical man, before the Academy of Motion Picture Arts and Sciences, several well-known casting directors sought to sign him up, to double for some of their favorite beauties, in the "talkies."

Evangeline

According to cable advices from the *London Times,* Dolores Del Rio, United Artists star of "Evangeline" and other film plays, has tied with Betty Balfour, English atcress, as the leading screen star of the British Empire in a poll in which more than 250,000 votes were cast. The poll showed that one-third of the men and one-half of the women favored talking pictures, that most fans attended the movies twice a week. Second to Miss Del Rio and Miss Balfour, was Clara Bow, then Esther Ralston, Vilma Banky, Florence Vidor and Mary Pickford in order. BOB KURRLE is shooting "Evangeline." Edwin Carewe directing.

* *

WILLIAM REES and ROY KLAFFKI are shooting together on "Hearts in Exile," at First National, starring Dolores Del Rio.

News!!

Industrial

. . Classifications

Here Is Where We All Get a Break!

Sound production has made it possible to secure EASTMAN and DUPONT Panchromatic Negative in considerable quantities. We have installed a complete plant for the testing of every roll and the segregating of it into 100, 200 and 400 foot lengths.

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Write now to

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Mention this add and get a sample roll free to test. Remember this is a 100 per cent Union organization—members Local No. 659 I. A. T. S. E., International Photographers.

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HOLLYWOOD, CALIF.

Oleson Expands

It is a far cry from the days of sunlit movie sets in 1907, to modern incandescent achievements. This is the outstanding record of Winfield-Kerner equipment, now manufactured and distributed exclusively by The Otto K. Olesen Illuminating Company, 1560 Vine street, Hollywood.

Back in 1907, Edward Winfield, then a well known photo-engraver, conceived the idea of using arc lamps for illuminating moving picture sets. He sold the idea to Mr. Kerner and there came into existence the name of Winfield-Kerner, known since wherever the cameraman has set his tripod. Like the movies, Los Angeles has been the home of Winfield-Kerner, but from here this equipment has been shipped to nearly every country of the world.

Otto K. Olesen, shop foreman of the early Winfield-Kerner firm recently purchased the shops, patents and right to manufacture this line. The Olesen Company now holds one of the three existing licenses issued by the General Electric Corporation to manufacture rotary arc equipment.

The development of their equipment has been gradual, but definite. From the early day arcs to the modern incandescents the high standard of their lamps has been maintained.

With the introduction of the incandescent lamp for movie production new and perplexing problems presented themselves in rapid succession. Instead of a very small light source, as in the arc lamp, the filament of the incandescent presented a surface so large that concentration problems became paramount. Reflecting mirror-grinding with lens-like accurancy was the only solution and, to this end, the Olesen Company have made rapid strides.

Under the experienced hand of Roger Nauman, technical engineer, development in efficiency and flexibility of incandescent equipment has been rapid. Among the noteworthy improvements to be seen on these lamps is the combination socket making the Mogul screw lamp or the prong type bulb instantly interchangeable. Greater ventilation of lamp housings is another feature that provides for higher wattage in the future without affecting the efficiency of present equipment. Improved switches, cool operator's handles, spill-light control, and controlled tension on lamp positions are also contributors to efficiency.

The Otto K. Olesen Company manufacture every type of incandescent and arc lamp for studio use, as well as special types of commercial and portrait photographer's lamps.

Technical Men

The magnificent new Service Building just completed by the Eastman Kodak Company, at 6706 Santa Monica boulevard, Hollywood, is the fulfillment of a dream of our friend Mr. Edward O. Blackburn, vice-president and general manager of J. E. Brulatour, Inc., west coast distributors of Eastman Motion Picture Raw Stock.



EDWARD O. BLACKBURN

Mr. Blackburn is a laboratory expert of national standing and, having been a friend and associate of cameramen for twenty years, he understands their needs, their ideals and problems.

As the general manager of J. E. Brulatour, Inc., he has been in close touch with both the Eastman Company and the cameramen and the new Service Building with its wonderfully complete equipment and its possibilities of immense service is a direct outgrowth of his enthusiasm.

Activities of the Stork

Born: To Mr. and Mrs. Jefferson Gibbons, April 24, 1929, a daughter.

* *

Born: To Mr. and Mrs. Fred Terzo, April 22, 1929, a boy.

Norbert Lusk, prominent New York critic, has had a lot of nice things to say about "The Rainbow Man," starring Eddie Dowling. This picture was photographed by Jack MacKenzie. It is an all-talkie and scored a great hit in New York.

Pension Note

Will H. Hays is championing an old-age pension for teachers. This will be cheering news to all the veteran cameramen in Hollywood, whose real job is to teach the new sound directors what it's all about.—*The Film Daily.*

Brother Tony Gaudio says the modern Mazda lighted set is so closely balanced that whenever an actor lights a match during the scene the negative is over exposed.

Up the Coast



ALASKAFIED

This is a picture of Brother Hobart Brownell, Portland, Oregon, steward of Local No. 659. The picture was taken at the foot of Mount Hood, and he describes himself as having been Alaskafied for the last few weeks.

A Big Job

"The Isle of Lost Ships," that wonderful story of the Sargasso Sea has gone into production at First National, Brother Sol Polito leading the following named associates in the camera corps: Faxon Dean, H. Lyman Broening, Eddie Linden, Speed Mitchell, Russell Hoover, Bert Williams, George Hollister, Al Smalley, Ralph Ash. Brother Les Rowley is handling the still work.

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Hi-Speed Mitchell
Long Beach 648-166

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The only bank in the Industrial District of Hollywood under State supervision

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35 MM. ONLY

STUDIO ENDS—Tested and Made Into

100 foot Rolls, 10 feet black leader each end.....$2.75
100 foot Rolls, 10 feet black leader each end (on spool).....$3.25
Same on the new Bell & Howell spool.....$3.75
200 and 400 foot Rolls.....2½c per foot
17½-foot pieces for Septs, 3 for $1.00, 7 for 2.00, 15 for $4.00
35-foot pieces in individual cans, 1¾c foot in 1000 foot lots only
White Negative Leader, $2.50 per 1000 feet
All Films shipped C. O. D.

FRED C. DAWES
Negative Stock Library 1426 Beachwood Drive, Hollywood, Calif.

A Gesture of Good Will

A grand gesture of good will from a great organization to a great profession is the gift to the cameramen of the motion picture industry of the Technical Service Laboratory, Santa Monica Boulevard, Hollywood, just completed by the Eastman Kodak Company.

For the laboratory is, in fact, nothing less than a perpetual gift of service to the photographic department of the motion picture industry, and a gift with no restrictions or strings. It is for the use of the men of whom Dr. Mees, director of the Eastman Research Laboratory, Rochester, recently said:

"You gentlemen are known throughout the world, without any dispute or question, as the greatest exponents of the art of photography—there is no question about it—the cameramen of Hollywood are the greatest known in the art of cinematography —in that field you are supreme."

And it is for their use without charge or obligation and its usefulness to these men for whom it was conceived and built will be determined only by the measure of their willingness to appropriate its facilities.

As THE INTERNATIONAL PHOTOGRAPHER goes to press the Laboratory (its excellence deserves the capital letter), has been declared completed by Mr. Edward O. Blackburn, vice-president and general manager of J. E. Brulatour, Inc., West Coast representatives for Eastman film, traditional friend of the cameramen and whose interest in the project from its inception has been characterized by intense enthusiasm.

This new institution is housed in an attractive building adjoining the Brulatour establishment on the west. It is 40x150 feet in ground dimensions and about 35 feet in height.

In front is a garden of flowers and trees separated from the street by a wall of novel design in keeping with the general style of the building.

Two great bronze doors open into the foyer, a gorgeous and sumptuously furnished room occupying the entire width of the building, lighted by immense cathedral windows hung with beautiful draperies and soaring away to the ridge beams thirty feet above—a room at once dignified, charming and unusual, the like of it not to be found in an industrial institution anywhere.

To the right as the visitor enters is the attractive booth of the attendant in charge; in the middle is the entrance to the laboratory, while at the extreme left is the stairway to the offices on the second floor.

Here is the library and the offices of Mr. Perry Connor, Mr. Emery Huse and Mr. Ned Van Bureau, none of whom require introduction to cameramen or to any of the readers of THE INTERNATIONAL PHOTOGRAPHER.

The library will be one of the most complete store houses of photographic literature in the world and will be at the service of cameramen night and day.

On the ground floor in the rear of the palatial foyer is located the laboratory, the dark rooms, etc., in which have been installed the last word in supplies and equipment known to laboratory practice. Here the cinematographer will find everything ready at hand that will enable him to undertake any desired operation in the development and processing of film. He is at liberty to follow his own devices. The workshop with all it contains is his and no questions asked.

So completely does the Eastman organizaiton keep its hands off that the cameraman is invited to bring to the Laboratory any brand of film he desires. If he wants advice he can have it without cost or prejudice, but otherwise he will work alone in absolute privacy and seclusion.

The rear seventy feet of the building is given up to the most delightfully comfortable and attractive private theatre on the West Coast.

Beautifully finished, luxuriously carpeted and with every seat a king's chair, this theatre will delight the heart of everyone who enters it.

There is an artistic procenium framing the screen, a stage just large enough to accommodate half a dozen people, silken curtains, steam heat, perfect ventilation and an equipment in the projection booth unsurpassed anywhere.

This little beauty spot will seat fifty and the front seats are sufficiently far from the screen to make every seat perfectly desirable. Here the cameramen are invited to hold their "star chamber" sessions behind locked doors, if desired, and carefully guarded from all outsiders.

Nothing has been overlooked for the comfort, convenience and service of the men in whose interest this unique building was erected and equipped and the more men that use it the better Eastman will be pleased.

The theatre is provided with complete lighting equipment so that if desired it may be used as a studio for special shots and this convenience will be utilized by the Eastman staff when the theatre is not otherwise engaged to make and screen tests of their film.

The total investment including furniture and equipment, approximates $125,000, certainly an impressive investment in good will and service and the cinematographic profession is sure to meet it in the spirit in which it is dedicated.

Future Possibilities of Recording Sound

By RUSSELL MCCULLOGH

Russell McCullogh, engineer in charge of Installaiton and Maintenance of Projection and Electrical Equipment and Supervisor of Projection, Fox West Coast Theatres.

It seems at the present time that there is a doubt as to what finally will be determined as the best method of synchronizing speech and music and also sound effects with motion pictures. Some producers have selected the disc method for recording while others prefer the film method.

The life of motion picture film and also the wear on records and film has been taken into consideration. It is possible that a sound film will last as long as a silent film, providing it has good care in handling and also providing the projectors, upon which the films are shown, are in good condition. We have run sound prints with film recording which have been in use ninety days to six months and found the sound track to be in good condition and recording perfect. However, with the disc method, the records can be run not more than twenty-two times and, if recording has sound effect along with speech or music, these records do not last as long as ordinary speech or musical records.

The film with sound vibrations, such as cannon shots or any loud noise similar to this, do not last long. Many producers have selected the disc method for synchronizing sound with motion pictures notwithstanding many difficulties have been encountered with disc recorded films. We have had trouble in our neighborhood theatres because of disc films being out of synchronism. On every occasion we have found that a piece had been cut from the film and had not been replaced with blank film.

It is very essential, in order to make a success of sound pictures, that these things do not happen and every projectionist should not fail to report when he cuts a sound print so that the film inspector at the film exchange may note this cut and replace the film before it reaches another theatre.

When disc film was first produced every foot of film was numbered. If a projectionist received a disc print without a starting frame he could readily look at the side of the film and tell what amount of film had been removed, so that he might start upon the frame on the first foot of film. It is regretable that this has been discontinued.

Many discussions have taken place during the past six months as to what method of recording will be used in the future, but it is apparent that film-recorded motion pictures will give less trouble in projecting than disc-recorded film. Another thing in favor of film-recording is that theatres may run two thousand feet of film on one reel whereas with the disc-recording method it is impossible to run over a thousand feet of film because of the record size.

While projecting film with synchronized discs "scratch noise" is very noticeable and is almost impossible to eliminate. This is a serious objection to the disc method of synchronization. The scratch noise interferes with speech and also music. With the film method, while projecting sound pictures, there is no noise noticeable with the exception of ground noises and those which register due to scratches or dirt on the sound track and noise which comes if the sound track is not lined properly with the sound aper-

[Concluded on Page 18]

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India's New Magic

By HERFORD TYNES COWLING

INDIA, weird land of wizardry and magic, has bowed its head to the superiority of a new sorcery and enchantment. Motion pictures met the gaze of their magicians and their sorcerers and for the first time left these world-famed conjurers of mystery spellbound.

Since time unrecorded, the fakirs of the East have performed tricks that for speed and cleverness put the famous magicians of the western stage to shame. Within two feet of the eyes of their audiences they accomplished what was manifestly impossible so far as sight goes; but they had their own 'open-mouthed" turns when they first saw natural figures moving on a silver sheet. They looked first in superstitious awe, then with a narrowing of their shrewd eyes and a thirst for understanding.

It was several years ago that the natural trick of projecting a moving picture struck them with the fullness of its possibilities. Now a dozen large companies and many more smaller ones are daily producing pictures under contracts worthy of foreign interest. They lost no time, once they understood the entire process, in getting the necessary equipment for this latest magic from the Western World.

They, who had mystified the world, they, whose tricks had been the origin of many an American Magician's cleverest feature, were determined not to be outdone by this new and latest magic, this jugglery of celluloid and light.

Once at work, they are earnest in an effort not to be outdone by a sorcery that has such a natural appeal for their own people. The result has been apparent in the pictures produced in India. They have placed their magic mango trees and their disappearing boys on the shelf; their flat throated, angry and poisonous cobras have given way to a greater magic and one which needs no weird flute to charm.

Before motion picture making became known to India it was not an unusual sight to see any one of the many men of mystery starting out for a day's work, with his snakes and other paraphernalia, to awe the simpler of his countrymen and all of the Western World tourists who lounge in the hotel patios.

Now everything is changed. While a few fakirs remain to keep up the Oriental atmosphere around the hotel for the tourist, the professional entertainer is busy at some job in the art of making motion pictures. When he starts for work, it may be a day spent at a big open air studio or in the jungle on location. To one who understands their language, the vernacular he hears is much the same as might be heard on any of the big Hollywood lots while "Hindustani" for "camera" rings through the age entwined land of Kim.

The director and camera crew consist of native men who have learned the mechanics of their profession through every scrap of information obtainable and are jealously familiar with its possibilities. Though they look through their cameras with the thoughtful eyes of apparent wisdom and confidence they see something different than our technicians. They see a beauty and mystery that is inbred in their souls backed by countless generations of Oriental mysticism.

To conjure with their new toys, the aim in their minds is to perpetrate a "trick" that will appear as miraculous when projected on the screen. Any one of the dozens of trick bits that the average American slapstick comedy shows is a "punch" for their production. Picture stories of their own legendary origin are immensely popular and the local theaters using this brand instead of the American product can always be sure of full houses.

Herford Tynes Cowling requires no introduction to any cameraman. He was one of the very first globe-trotters with a motion picture camera equipment, having been for years with Burton Holmes. He has been in practically every country on earth and has had wide experience in every branch of photography. After leaving Holmes, Mr. Cowling joined the visual education department of the Eastman Kodak Company as technical expert. He is a member of the I. A. T. S. E., Local No. 644, and will henceforth be a regular contributor to THE INTERNATIONAL PHOTOGRAPHER.

Never before had women actually taken part in public theatricals; in fact, neither a Hindu nor a Mohammedan man would appear on the stage in public. Men only play the part of actresses on the stage.

But with the filmed shadow stage it is all different; not only does the Hindu like to practice the new magic but the Musselman is willing to scrap the old moslem law forbidding the "making of an image of any living thing" dictated by his Koran; and both have consented to permit their women to appear in filmed plays for public exhibition. Bang—goes the caste system on the toboggan—what medium will do as much for India in supplanting the antiquated and unjust caste system, as that of motion picture entertainment? As Mother India goes to the corner movie house to sit and peer with thirsting eyes, this new magic will plant the seed of desire for an understanding of the world beyond her secluded existence and customs begin to change. The new art has thrived long enough in India for names to become familiar to the theatergoing public. With casts composed entirely of native actors and actresses the picture fans have found the touch they were looking for.

They created their own cinema stars. Selecting names for the actors and actresses was the same problem that it is in America. Catchy names, that would appeal, were the ones sought. "U Shave Yo" and "Nyi Bu," are among the popular appelations. These names are now heralded from Bombay to Rangoon with the blaze and blare that accompany John Barrymore or Janet Gaynor from Long Island to Hollywood.

Their girls are winsome Orientals, glowing and glorious; colorful and deep. Their eyes have that indefinable mystery of the Orient plus a depth that is only found in India. They furnish the charm of the new magic and quicken the pulses with their seductive eyes and olive drab complexions.

"Pale hands I love—
Beside the Shalimar—
Where are you now?
Who lies beneath your spell."

"Love is the great mystery of life," says the Oriental and this seems to be the keynote of his delight at other mysteries and charms. Their amours are ever a mystery, a bewitching bit of sorcery. They are good screen material because they possess a charm that flickers from the silver sheet straight to the hearts of the spectators.

No land is so full of pomp and ceremonies as India. At the courts of its Kings, Maharajas, Rajas, Nazims, and varied titled rulers, there is no lack of romance for natural settings.

This domain that stretches from the tropic isle of Ceylon to the inimitable Taj Mahal, that undying tribute to an undying race, where the mighty Moguls "wrought like Titians but finished like jewelers," on to the everlasting snow capped peaks of the Himalayas where lies that jewel of all beauty, the vale of Kasmir.

Picture a set with royal decorations, with carved cabinets of teak inlaid with ivory, a couch with a rich silken covering which extends to the bottom of its lion claw legs, a wall panel with an ebony dragon on a carved ivory background, and in the center the little tiger woman enthralling her lover. The usual hiding scene is necessary to the plot. In an American picture he would hide in the nearby clothes closet or behind a convenient curtain. In India that would never do. There must be some bit of the unusual thrown in to spice things up a bit, to touch the dominant chord of magic which rustles restlessly in the souls of its people. She touches a secreted button and the panel dragon section slides out revealing a small hidden chamber. Into this goes the lover. She touches the dragon's eye and the door again moves into place before the disturber enters. The lover is safe, the mystery angle has been added, the love scene has been fiery, and the pearl trimmed little lady registers Oriental delight that love and mystery have had their collective hour.

Even the child actress with her fairy-like trimmings and dainty wand senses the magic of things as her little inner soul senses the love that is to be hers some day. She makes a perfect cupid and revels in the phantasy. With the naturalness that is only to be found in a child where self-consciousness has not dwarfed other emotions, she rollicks through her part and brings love to an otherwise cold heart in the drama with a gesture of the tiny staff. Her physical presence is not supposed to be a part of the scene. She is

[Concluded on Page 24]



Lower left—*Native cameramen on location along the road "from Rangoon to Mandalay."* Lower right—*A scene from "The Misty Way" reveals capable acting faces when a kindly character attempts to explain the well known mystery of lovers' quarrels.* Upper right—*The height of enchantment is a day on location with a native Indian film company. The new magic of the motion picture camera is their delight.* Upper left—*Dressing a set in the sunlight studio of the Burma Film Company at Rangoon.* Center—*One of the many beautiful types.*

Dupont Sound Film

Smith & Aller, western distributors of Dupont raw stock, have transmitted to THE INTERNATIONAL PHOTOGRAPHER the accompanying bulletins on the new V.D. and V.A. Sound Recording Film issued by the Dupont-Pathe Laboratories:

VD—"Variable Density Sound Recording Film"

V.D. TYPE

The most important features of the V. D. film are its high resolving power and low gamma infinity. A special treatment is given the film in the course of its manufacture which considerably increases its resolving power and makes it capable of recording requencies far higher than those needed in practical work. The same treatment also serves to limit the maximum gamma obtainable with the film to a value of approximtaely 0.8 as compared with a value fo 2.8 which is representative of positive emulsions. This unique feature insures far greater ease and exactness in the control of development since the increase of contrast with time of development is much slower than with positive film.

It has long been recognized that it is very advantageous to develop a film to at least 75 per cent of its gamma infinity. This criterion is met satisfactorily by the V. D. film with its gamma infinity of 0.8 since it is common practice to develop variable density sound track to a gamma of 0.5 to 0.6.

Another distinct advantage which is characteristic of this film, is its freedom from the halo effect at the junction of a high and low density. The bromide liberated restrains development in the adjacent portion of the low density. This effect is characteristic of emulsions of high gamma infinity and becomes objectionable in the recording of high frequencies of large amplitude.

V. D. film does not require any greater exposure than positive stocks and will improve the reproduction of sound, not only because of its high resolving power and freedom from halo effect, hut also because of its fool-proof development characteristics.

VA—"Variable Area Sound Recording Film"

V. A. TYPE

A survey of the filed which was made prior to the working out of a special film for variable area recording revealed the fact that positive films do not have sufficient sensitivity for the purpose. Recording engineers are forced to operate their exposing lamps considerably above the rated amperage—a practice which shortens the life of the lamp and increases the danger of lamps burning out during the taking of important scenes. In addition to this evil, laboratories find it necessary to force development of the sound track in powerful developing solutions. This practice slows down laboratory production and produces undesirable effects in the film.

The new DuPont V. A. film with its higher sensitivity not only allows the reduction of recording lamp currents to safer levels but also shortens very considerably the time of development necessary to produce the desired track density.

Some idea of the improvement in working conditions with DuPont V. A. may be obtained from the results of a comparative test made by the technicians of a concern using the variable area recording system. It was found that positive stock exposed at 4.2 amperes required a development of 6½ minutes as compared to a developing time of 4½ minutes for DuPont V. A. exposed at 3.8 amperes. The comparison test also included the recording of very high frequencies and it was found that the DuPont V. A. was fully equal, if not superior to positive stock in its ability to record high frequencies.

In short, the use of DuPont V. A. makes it possible for sound recording engineers to reduce their lamp currents and increase their factor of safety; it makes possible a very considerable increase in production for the laboratories, and oes away with the bad film effects attendant on forced development.

In including all these advantages in the DuPont V. A. it has not been necessary to sacrifice, in the slightest degree, the ability of the film to record frequencies far higher than those needed for practical purposes.

Spring Meeting S. M. P. E.

The spring meeting of the Society of Motion Picture Engineers to be held in New York, May 6 to 9, presents an exceptional opportunity for the Motion Picture Industry to become acquainted with the work of the Society. Heretofore the meetings have been held in Boston, Washington, Norflok, Virginia, Lake Placid, Hollywood, Rochester, and other places which offered certain attractions or special facilities, but were difficult for some of our members to reach and therefore limited attendance. The meetings of the Society of Motion Picture Engineers have been uniformly successful, but the one to be held this year in New York should be the largest in the history of the organization.

The Society of Motion Picture Engineers, since its formation in 1916, has quietly performed a service of inestimable value to the Motion Picture Industry. The work of the Society has been carried on with comparatively litlte recognition and practically no help except from its own members and the firms represented by membership. In spite of this the Society has prospered and built up a splendid record of accomplishment. The editor of "The Nation's Business" recently attributed much of our national prosperity to the work of industrial organizations working along lines similar to that of the S. M. P. E. The transactions of the Society constitute a history of the technical davance of the Motion Picture Industry. **Through the Society of Motion Picture Enginners knowledge has been increased, interest created and pride developed which have been a tremendous force for the advancement of the industry in its technical departments.**

It is expected, and Is certainly to be hoped, that the Motion Picture Industry will avail itself of the opportunity to see the Society actively function during the coming spring meeting in New York this year. The technical organizations and departments of this industry are to a large extent located in other places, but New York is the headquarters of the executives of this industry. Every effort should, therefore, be made by our members to see that the leaders in this field attend one or more sessions of the convention.

The Convention Committee has worked very hard to make the meeting a success and the Papers Committee has prepared a program of exceptional interest. It is important, however, that members of the Society do their share toward making the meeting a success. A large attendance has a stimulating influence and our members should reward the committees for their work by being present at business sessions and social events. Members living in New York are under the particular obligation to do this. They should put aside thought of their offices, consider themselves out of town and devote as many days as possible to getting all they can out of the spring meeitng of the Society. In this way they will greatly help the work of the Society, derive a positlve practical benefit and enjoy the recreational program which is laways an important feature of meetings of the Society of Motion Picture Engineers.

Chairman P. A. McGuire, F. C. Badgley, Jos. Dubray, G. C. Edwards, Irl Gordon, O. A. Ross, P. H. Griffith, J. R. Theiss, Publicty Committee.

A Color Pioneer

Alfred Gosden, one of the distinguished pioneers of the motion camera specializing in color work, has joined the forces of Multicolor as laboratory technician. Brother Godsen began hi scareer in color photography with Kinemacolor, in the service of which organization he photographed such great spectacles as Durbar in India, and the coronation of Edward VII of Great Britain. Brother Gosden's present assignment is at Real-Art studios.

Brother J. M. F. Haase, chief aerial photographer of the U. S. Battleship Fleet, North Island, San Diego, is shifting his field of activity to Alaska. Hope you locate some gold mines up there J. M.

With the Pioneers



NORTON "DOC" TRAVIS adds this gem to the "Pioneer" series. It was shot in 1906 at the old Twin-plex studio in New York City, owned by a man named Ruby. The shot discloses "Doc" with his Warwick camera, an English model, considered good in those days. The picture under execution was "The Dock Rats of New York," directed by Red Mack. "Doc" says that the first real motion picture camera was the Black, also an English make.

Poetry

At the last open meeting President Wyckoff received the following telegram from the I. A. boys on location away up on the Feather river with Director Edwin Carewe "Evangeline" company:

Hollywood Chamber of Commerce,
Sunset at Hudson,
Hollywood, Calif.

"Can't be at the meeting so we send this little greeting; we are on the Feather river where we all stand and shiver. It rains, snows and freezes and we miss those southern breezes." Bob Kurrle, Elmer Dyer, Al Greene, Joe Novak, Bob LaPrell, Rod Tolmie, Jim Palmer.

THE EVANGELINE GANG.

JACKSON ROSE has recovered from an attack of influenza. Jack was too rugged for the "flu" to do much damage and henceforth no doubt it will be glad to leave him alone.

* *

DANIEL B. CLARK has trained down into the light heavy-weight class since he returned from Tahiti. Dan ascribes this falling off in avoirdupois to lack of the Tahiti diet of cocoanut juice.

Brother R. B. Hooper has entered a new exploitation field by signing a five-year contract as publicity man with Lillian Lane, well known stage and radio entertainer. Brother Hooper became interested in Miss Lane because of her unusual southern voice which sound experts pronounce perfect for talking pictures. Miss Lane has been cast for an important part in Paramount's all-talking picture "Magnolia," featuring Buddy Rogers.

At Lasky's

HARRY FISCHBECK will start production soon on Clara Bow's next picture entitled "Dangerous Curves."

* *

HENRY GERRARD is now filming "Thunderbolt" for Von Sternberg. After its finish he will photograph "The Greene Murder Case." Tuttle directing.

* *

ROY HUNT has just finished "Burlesque" with Cromwell Sutherland directing and is starting on April 15th with the first Moran and Mack production.

* *

VICTOR MILNER recently finished a Milton production "The Marriage Holiday," and will start in a few days on "Magnolia" with Dick Wallace directing.

* *

EDDIE CRONJAGER is with Schertzinger making a Richard Dix picture entitled "Wheel of Life." His next will be "Grounds for Divorce," with Cukor directing.

* *

HARRY HALLENBERGER recently played "first fiddle" for Henry Gerrard who was sick for a few days. By the way Henry was just recently married. Congratulations to both bride and groom.

* *

REX WIMPY has finished the last of the Zane Grey series of outdoor pictures, "Stairs of Sand," Brower directing. Rex was the envy of the sound boys—seemed so simple to work again on a silent production.

* *

VIRGIL MILLER, new chief of the camera department at Lasky's is recovering from his regular spring attack of the "flu." Virgil feels that he should be twins to adequately handle the day and night production. As it is he manages to get in only 16 to 18 hours per day. He didn't say what he does with his spare time. Mr. Miller reports a minimum of seven men on the photographic staff of each production with extras needed at all hours—with five companies now producing and a possibility of four more in production soon—well, figure it out yourself.

* *

Paramount's new sound stages are ready for shooting and were completed in the record time of forty-eight days. There are four stages housed in one building 200x220 feet. In addition to the stages there are four monitor rooms, one generator room and a heating and ventilating plant.

* *

PRESIDENT ALVIN WYCKOFF of Local No. 659 has completed two weeks' work with the Von Sternberg production.

The Wisdom of Old Abe

Beneath the glass top of Brother James E. Woodbury's desk at his photo-finishing studio, 5356 Melrose avenue, lies a world of wisdom in the nature of carefully selected clippings voicing the thoughts of great thinkers of all ages. We copied this one the other day and pass it along to our members:

"I do the very best I know how; the very best I can; and I mean to keep doing so until the end. If the end brings me out all right what is said against me won't amount to anything. If the end brings we out wrong, ten angels swearing I was right would make no difference."—*Abraham Lincoln.*

"The Daily Grind"

By RALPH B. STAUB

Latest in Mergers: Stern Bros. and Eastern Outfitting Co.

* *

Wonder who this guy Merger is, that's creating all the furore in Hollywood.

* *

LEN SMITH is getting huskier every day—looks like the biggest development since Florida.

* *

SPEED MITCHELL is not afraid of work—he could lie right down beside it and go to sleep.

* *

MERRITT GERSTAD they say was once an actor. He played the sweatband in the Green Hat.

* *

LEE GARMS is photographing Al Jolson and Davey Lee at Warners' in Al's latest tear jerker.

* *

JOHN ARNOLD is still being complimented for his beautiful photography in the "Broadway Melody."

* *

JACKSON ROSE has just written a new song entitled "You're the Squeak in My Talkie," for Tiffany-Stahl.

* *

Saw VIC MILNER riding to work at Paramount in a new Ford. Don't go way folks, he owns a Lincoln too.

* *

ERNIE PALMER says talking pictures were invented so that woman could have the last word even on the screen.

* *

GENE SMITH, the man with the 14-inch lens, is still with Pathe studios and going strong as ever. Ask Dave Abel—he knows.

* *

BILLY MARSHALL tells me he's ready to yell "Interlock" at RKO studios. Billy is about to photograph the first RKO feature talkie.

* *

RAY BINGER has just returned from Chicago. Ray says when in Chicago you're thrown out of a cabaret—be nonchalant—light a bomb.

* *

HARRY PERRY says he hopes to live long enough to see the premiere of "Hell's Angels." Chances are he will—but by that time he will have a beard.

* *

HARRY DAVIS tells me that half of his furniture goes back to Louis XIV and if he doesn't get a job soon the other half goes back on the first of the month.

* *

DAVE ABEL says he loves California where, no matter how hot the days are, it's always cool at night—in Alaska. Dave is still with Pathe making talkies.

* *

RAY JUNE tells me he has eaten his first and last meal at that new stiff hat cafe in Hollywood where they charge $16 for a sandwich, $22 with mustard.

* *

While out with BILL GRIMES at Selig Zoo making pictures with NILS ASTHER, and a few lions, BILL says: "When you get close to a lion don't run—look him straight in the eye." Well, I did, but from the outside of the cage. Thanks for the tip, BILL.

KARL STRUSS, United Artists' great camera artist, got the thrill of his life from the way the photography of "Coquette," Mary Pickford's latest talkie, was lauded by the critics.

* *

Received a wire from PHIL TANNURA now in New York, he says half the town is run by green lights and the other half by Israelites. Phil is shooting for Pathe Sound studios.

* *

Saw JACK YOUNG "shooting" some girls in a spring dance. Jack knows all about spring dances. He became a classic dancer trying to put on a union suit in an upper berth.

* *

TED TETZLAFF is shoot for Al Rogell at Columbia, making the "Flying Marine" with Ben Lyon and Shirley Mason. His assistant is LESTER SHORE, a boy who uses his head—to keep his ears apart.

* *

HAP DEPEW who has been with Trem Carr Productions, says that is the only outfit in the business that can make two pictures for the price of one and still have enough money left over to make a one-reel comedy.

Hoke-um

By IRA

Elmer's Car

Elmer Dyer: "Do you know, I've never paid a cent for repairs on this Ford?"

Billy Tuers: "Yeah. That's what a boy up at your garage told me."

Self Defense

Glenn Kershner: "I bought a new Mitchell Speed Camera, and traded in my player-piano as first payment."

Roy Klaffki: "I didn't know they accepted player pianos as payment on new cameras."

Glenn Kershner: "They usually don't but you see I live next door to George Mitchell."

Sporting Note

Director: "Look here, this bust of Shakespeare is on the pedestal marked 'Scott'."

Property Man (Local 37): "Well, well! He must have got his base on an error."

"Ninety Days!"

Judge: "What was the last work you did?"

Prisoner: "Well, that was when I was a photographer's model at the Police Bureau of Identification."

Give Him Time

Extra Girl to Musician: "Have you 'Kissed Me in the Moonlight'?"

Musician: "No, Miss. Perhaps it was the violinist. I only came with this company yesterday?"

Who Can Answer This?

Farciot Edouart: "Are you interested in Einstein's theory about space?"

Fred Westerberg: "I sure am. How does the inside of a speed camera hold 400 feet of film when a buckle occurs yet, when you thread it up, there is scarcely room to make a decent loop."

Reginald E. Lyons

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ALFRED WEISS, *Pres.*

NEW YORK — HOLLYWOOD

Future Possibilities of Recording Sound

[Continued from Page 11]

ture. These noises are not so serious and can usually be readily corrected during the showing. However, it is almost impossible to correct difficulties after a disc is once started.

During the showing of film with film-recording it is apparent that the picture size is out of proportion as compared with the silent picture. This condition has been rectified in many theatres by the use of special apertures and also additional lenses. It is possible, in the future, that the film width may be extended so as to allow for space for the sound track on motion picture film. This method of recording with sound on special film has not yet been put into practice, but we are advised that in the near future some such method will be adopted by producers. This, of course, would necessitate a special projection machine.

A Glassless Booth

Brother Joseph Walker, at the Columbia studios, has designed and is using in production a sound booth in which the glass front (which has ever been a source of annoyance to all sound cinematographers) is replaced by a solid front.

A hole is cut through the front to admit the matte box which is padded all around with hair felt and gum rubber. There are small glass windows for the finder and for the operator to sight through. The change has brought about a noticeable increase in brilliance as it is well known that in booths using glass windows a certain amount of diffusion and lack of brilliance is the result.

Brother Jackson Rose, now shooting "Life" for Tiffany-Stahl, is at work on one of the largest and most elaborate sets ever constructed by that company. The principal scene was the stage of the Metropolitan Opera House, New York City, with the Metropolitan Opera Company singing the opera "Faust" accompanied by an orchestra of fifty pieces. It was all shot in sound of course and Brother Rose had associated with him the following named first cameramen—Billy Tuers, Harry Jackson, Jack MacKenzie, James Brown, Kenneth Peach, assisted by Jeff Gibbons, Rube Boyce, Stanley Horsley, Jess Ivey, Phil Moore, Eric DeBrath. James Flood is directing.

A Fearless Product

The Cinema Equipment Company, through Manager Ralph Fear, reports the successful installation and operation of a Fearless Simplex Automatic Developing Machine in the laboratories of the M-G-M studio at Culver City.

This remarkable machine is the result of seven years' of experimental work and its perfect performance under the most drastic tests possible to present day laboratory practice proclaims it an important contribution to the economic side of motion picture production.

The manufacturers claim for the new machine the greatest possible simplicity in that it is of vertical, straight line construction and without gears, sprockets, compensating rollers, etc.

It is absolutely free from film breakage risk other than that caused by imperfect splicing as the fault of the owner of the film before delivering it to the machine.

Because of its simplicity of construction the manufacturers claim for it the lowest possible cost in maintenance and operation and guarantee it absolutely against breakage or damage to film.

It will handle 130 to 220 feet per minute, the machine being of duplex construction and, therefore, double the capacity of any other machine. The temperature in the dry box is thermostatically controlled. Numerous air squeegees remove the surface moisture from the film and largely eliminating the mixing of one solution with another. It will also handle 16 M.M. film.

Another exclusive feature is that all the mechanism over the tanks can be removed and a new machine installed ready for operation within fifteen minutes.

The Fearless Simplex Automatic Developing Machine is forty feet long, is grease and oil tight and has positive speed control.

The Cinema Equipment Company reports a shop running at capacity speed and great activity in the movement of their several products especially Sound Track Recording Machines and High Speed Silent Movements.

LEROY GREINER successfully weathered the storm of "flu" that recently swept his handsome anatomy and will be strong enough to thread his camera again before this issue of THE INTERNATIONAL PHOTOGRAPHER is off the press.

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Hollywood, California

The International Photographer

BEGINS ITS career with a circulation which includes the *Entire Craft* comprising the Photographic workers of the Motion Picture Industries and through the affiliations of its publishers, Local No. 659, International Alliance of Theatrical Stage Employees and Motion Picture Machine Operators, addresses its message to an additional friendly and co-operative field of many thousands.

THE INTERNATIONAL PHOTOGRAPHER occupies a field peculiarly its own and is not in competition with any publication within or without the Motion Picture and Allied Industries.

Already it has taken on international qualifications and it can guarantee its advertisers a constant and fast growing circulation both in America and abroad.

Its ideal is to become as rapidly as possible a clearing house for the exchange of ideas appertaining to the scentific, artistic, economic, literary, mechanical and educational departments of the cinema and to this end plans are making.

Address all communications to

THE INTERNATIONAL PHOTOGRAPHER

426 MARKHAM BUILDING

6372 Hollywood Boulevard Hollywood, California

A Sound Recording Truck



1—Recording panel. 2—Start and control rheostat. 3—Film recorder. 4—110 D.C. to 220 A.C. three phase convertor. 5.—350 volt dry D.C. 6—Synchronizing motor. 7—Storage battery compartment 110 D.C. 8—Gain set. 9—Oscillator motor. 10—8 "C" Amplifier. 11—17 "B" Amplifier. 12—Charging control panel. 13—Synchronizing control. 14—Film recorder magazine. 15—Microphone cabinet. 16—Mixer panel. 17—Camera motor extension. Courtesy of Helmer W. Bergman, Technical sound Expert, Metropolitan Studios.



This illustration shows the Akeley Gyro Tripod in actual use by the Western Electric Company, taking sound moving pictures.

Again AKELEY

. . . anticipated necessity
with a tripod ideal for Sound Pictures

"GIVE us the best camera tripod that human ingenuity can devise!" This was the demand of the sound cinematographers.

It was characteristic of the Akeley Company that its research laboratories had already anticipated this demand and were putting on the market such a tripod—a tripod quiet in operation, capable of great speed and flexibility, vibrationless but light, staunch yet easy to manage.

The Akeley Universal Gyro Tripod, containing the famous gyro mechanism, stands today a leader in this latest field of photography. This tripod is in constant use in many leading motion picture studios making Sound Pictures. These studios include Metro-Goldwyn-Mayer, Fox-Case Movietone, Pathe and Paramount. Other world wide corporations, such as Radio Corporation of America, Westinghouse Manufacturing Company, Western Electric Company and General Electric Company are enthusiastic users of the Akeley Gyro Tripod in their important work. We i vite you to write for full description of this Tripod and details of our deferred payment plan.

AKELEY CAMERA INC.

175 Varick Street New York City

The Akeley Universal Gyro Tripod

Out of Focus

By CHARLES W. BOYLE

(Thoughts while passing from left to right in Hollywood. With apologies to nobody.)

Some days you just can't save a dime.

* *

Why not use a K 9 filter on dog pictures?

* *

Pete "Mole" insists on light and he gets it.

* *

A pair of tights—Jack MacKenzie and Faxon Dean.

* *

I wonder what that "Repertoire" film is like that Eastman has.

* *

Johnnie Mescal goes by in Packard roadster and no golf clubs in sight.

* *

Just saw Abe Scholtz on his way to the Lab. Smiling as usual. It's a gift.

• •

Sign in restaurant, "Fish to take home." Should have more play from the girls.

* *

Things must be good today. There is not a quorum at Holly and Cahuenga.

* *

Passed the one arm lunch room, the one and only on the Bullyvard, and no cameramen in sight.

* *

I wish Glenn Kershner would wear a bow tie to help me prove to my friends that he is an artist.

* *

Ralph Fear should install one of his radios with the new Fearless Movement as they were sure the berries.

* *

Stern Brothers are still waiting for Warner's to get all the big studios lined up so they can buy them out.

* *

Western Union Office. Messenger comes out in uniform and puttees and gets into Nash sedan to deliver messages.

* *

Chances of a lifetime. Dr. G. Floyd Jackman, dentist, ex-cameraman, having his pet hate coming in for an extraction.

* *

Why doesn't Max Factor use this: "Let's Kiss and Make Up" with Max Factor's Panchromatic Make-Up. Not an ad.

* *

Uncle Carl's new signs at Vine street—"Show Boat," "Broadway," etc. Wish the cameramen's name was on them. Fox does it!

* *

Don't you like to hear Max Dupont talk. His color process is knocking them for row of brick smoke houses and that's what helps.

I hope to meet "King" Charney some day. The rest of the gang say he is "jess fine" and I have seen some nice results with Agfa.

* *

Smith and Aller report good results with the V. D. stock. Why did they leave out the "B"? Sounds like a name for short ends. B.V.D.

* *

Andre Barlatier has made remarkable progress with the Filmascope. How about putting the INTERNATIONAL PHOTOGRAPHER label on the film Andre.

* *

Max Ascher's trick store. Six people waiting for service while Max explains how he played Admiral Puckerlip in "We're in the Navy Now."

* *

Sam Landers—the little fellow with the big camera—can take Normal, Sound and High Speed shots upside down and backwards. Give the little fellow a big magazine.

* *

Eddie Ullman selling insurance and doing well. I guess I am about ready to see him as I had a couple of day's work. He has the best and I guess that's good enough.

* *

Zero in bad luck. Three Akeley cameramen on the job. Extra pay for flights. Two crates take off. Third crate won't start. No extra pay for third cameraman. Why don't you sue him Elmer.

* *

Balzer's show a display of canisters, cork screws, whiskey glasses in all colors, cocktail shakers of silver, highball glasses with trick straws, and ice buckets. They will sure be S. O. L. if prohibition goes into effect.

Garman for School Board

At the solicitation of members of Organized Labor, who believed that one of their number should have a place on the board of education of this city so as to give representation to the large class of citizens who pay taxes and have children in our public schools, Harvey E. Garman, member of Typographical Union No. 174, editor of The Citizen and secretary-treasurer of the Allied Printing Trades Council, gave his consent to have petitions circulated placing him in the field of candidates. It was decided to make the move on Tuesday of last week, and by Thursday afternoon petitions containing more than 1000 names of members of the crafts and many outside were filed with the city clerk.

Many proffers of support have come to the candidate from outside sources, as he has given assurance that he is strong for the public schools, believes in the open transaction of all school business, is against corporal punishment, and is opposed to all star-chamber methods. Garman is a taxpayer, has had considerable legislative experience and an active campaign is to be conducted in his behalf. Members of Local No. 659 please take notice.

BOB DE GRASSE is recovering from a damaged leg sustained by falling off a parallel. He was really hurt playing basketball with the Tahiti University team, but the other reason makes the better story.

". . . a color so pure and so beautifully blended that every sensation of life comes as if by magic to the screen . . ."

—From International Photographer for February.

Vitacolor

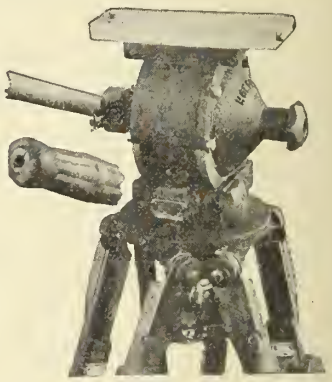
Max B.

DU PONT VITACOLOR CORPORATION

207-9 N. Occidental Blvd.

Los Angeles, California

Trueball Tripod Heads



MODEL B

Their use for follow shots assures smooth operation, having an equal tension on all movements. Also, their action is unaffected by temperature.

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GLadstone 0243 Los Angeles

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Automatic

Developing Machines

They are the simplest machines on the market.

They have the lowest maintenance cost of any machine built.

They require less power and heat to operate than any other machine.

They are the most reliable machines on the market.

They are the only machines on the market in which all the mechanism over the tanks can be removed and a new machine installed ready for operation in less than 15 minutes.

They are geared to run when the film is out of tanks for threading.

They have no sprockets.

They have power driven hoists for lifting out of tanks.

They have no brakes.

They have no compensating rollers.

They are built entirely out of non-corrosive metal.

All bearings are either Ball or Roller type even to the bearings for the shafts in solution.

They are grease and oil tight.

They have positive speed control.

They have positive temperature control.

They have a capacity of 130 feet per minute.

They are guaranteed to process film without breakage.

We also build film sound track recording machines, wax record recording machines, wax shaving machines, automatic clutches, high speed silent movements, optical and step printers.

CINEMA EQUIPMENT CO.

755 SEWARD STREET **GRanite 6210** **HOLLYWOOD, CALIFORNIA**

WATCH FOR NEW FEARLESS PRODUCTS

India's New Magic

[Continued from Page 14]

an invisible little somebody from the happy land of perfect love.

Just what this touch means to the Oriental can be realized by creating an imaginative scene in an American photo-drama. Visualize Aileen Pringle, the inimitable exciter, finding it impossible to give her heart to a John Gilbert. She is filled with the soul of love, but it is not for him. Instead of the conventional way of having her change and come to see that it is John she loves, let Baby Peggy come in dressed in spangles, her very person vibrating with love, and gently touch Aileen with a wand. This would be ideal in Indian lore for at the touch of the magic staff of the little girl Aileen's love would immediately turn to John. The perfect scene would be completed and were it a native Indian audience that looked on, many would be the sighs of their modest maids, in personified idealization.

Motion pictures have not changed the lives of the Hindus or Mohammedan girls. It has shown them a new manifestation of their kindred emotions of love and mystery, but they are fundamentally the same. They make idols of their stars even as their American sisters do.

In America the average school boy or girl knows just how motion pictures are made and what general processes are necessary to place them before the eyes of the spectators. The vast rank and file in India have no idea of the mechanics. They know, if they visit a show and pay a few annas admission, that they can sit and watch mysterious happenings on a big sheet of silver stretched in front of the darkened house. They hear the click of a machine, but it is the great mystery of the flitting shadows which touches their inner souls. The basal motif they understand and that is generally expressed in a love theme. If no kindly soul reads the subtitle to them, then they are undisturbed.

To be sure, many educated natives know the general mechanics of pictures. Many have traveled in foreign lands, and see the screen through being in touch with Western civilization, but these are so few that they strengthen the rule rather than destroy it. Less than four per cent of India's three hundred million souls read any language, including their own. Yet, vast numbers of the remaining ninety-six per cent can go to see moving pictures and enjoy them.

The folk lore of India is founded on love themes, probably to a greater extent than any other country, and it is but the natural thing that these people should recognize the emotion when it is put into a screen story. They have listened to these legends many times before. They have had them for their bed time stories. They have been filled with mystery, the tales that were told without explanation, since there is no way to explain the magic of The Genii.

The average theatergoer can come into a theater where a native legendary screen story is being shown and know just what has happened before, even though he may enter in the middle of the show. He also knows what will follow. This fact, however, does not cause him to lose intrest. If he is satisfied with this picturization, he will come to see it again and again and continue to enjoy it.

Undoubtedly the most popular American filmed story ever exhibited in India was, Douglas Fairbanks' "Thief of Bagdad." Probably no other feature picture has been so full of the magic wand they love. It enthralled them beyond words and left them spellbound. The magic carpet was a "riot." They packed the show houses week after week, coming again and again, bringing friends by the score. Here was a story they knew of old —so truly Oriental: Miracles they had heard of time and again but never expected to witness with their eyes. Great was the excitement and enthusiasm I witnessed in a little cinema at Lahore during the showing of this film. The picture had been showing for weeks then, with a constant never-ending stream of attendance, and you can bet the native producers of Bombay and Calcutta took due notice thereof.

Their own comedies are but a combination of "gags" loosely tied together by a none-too-intricate plot. These they hilariously enjoy, for producers attempt to crowd in all the trick comedy acts possible. Countless objects thrown into the air fail to come down; while the much discussed Indian trick of suspending one end of a rope in the air for a boy to climb is always a sure fire hit.

Much of the material of their tricks is plucked boldly from the American comedies they see screened, and the ideas used to fit their own situations. While some of their stunts are very crude and would not occasion a laugh to an American audience, other bits would bring a grin from the most blase. They are natural funmakers. They are natural tricksters. Comedy is a by-product of their desire for making magic.

The indescribable charm of the tropical twilight and the fullness of its night accounts in some measure for the spirit of love and mystery of its people. It is just then getting into the most sublime hours of enchantment with the chanting of priests and the ringing of the bells in the temple as is aptly expressed by the poet who words it:

"When the faces of the Buddahs shine illumined in the night
By the glimmering of the candles which the silken people light,
Then the subtle charm of Burma steals your willing heart away
Ah, the magic gongs are ringing from Rangoon to Mandalay."

Small wonder is it that the Orientals have put their snakes and their flutes, their trick cards, their ropes and crystals aside and dived heart first into the new magic of motion pictures.

OUR PREHISTORIC ANCESTORS

The First Rear Seat Driver

By *John C. Hill*



It gives you just the panchromatic quality you want in your "stills"

The New

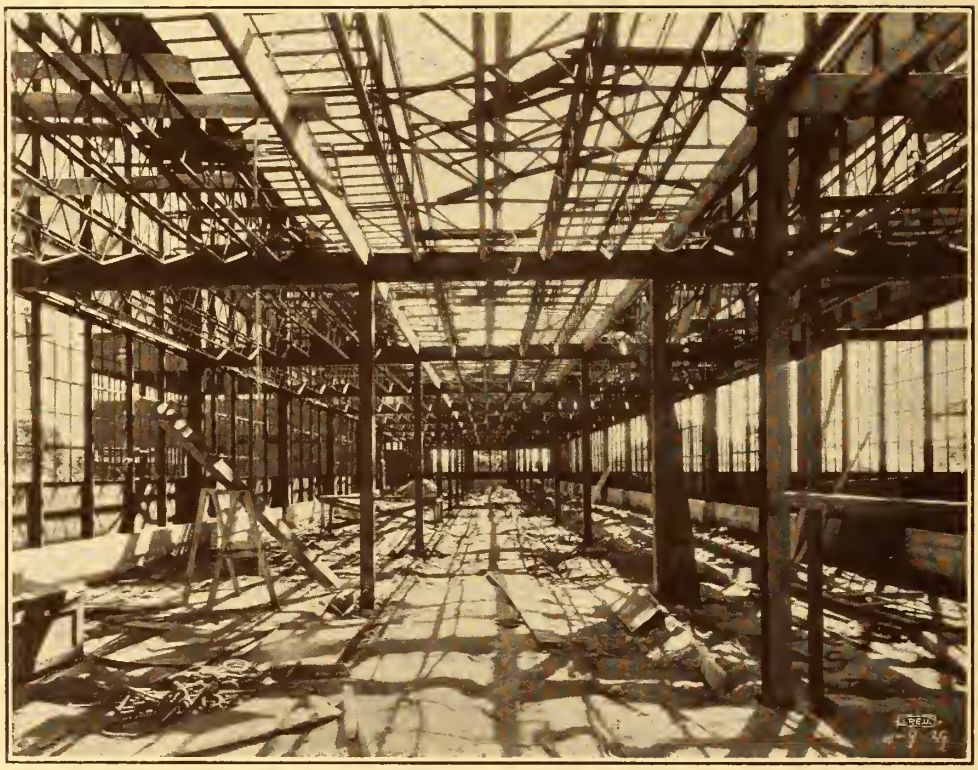
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Portrait Panchromatic Film

It has brilliance, but with it, the gradation which picks up a long scale of tones. It has speed, but also the fine grain so essential for enlarging. And it has the latitude that permits of variation in exposure without loss of quality—in short, it pairs up with Eastman Cine Panchromatic for uniformly high quality. One trial will make you want more Portrait Panchromatic results.

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INTERNATIONAL PHOTOGRAPHER

HOLLYWOOD



JUNE · NINETEEN · TWENTY-

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First to recognize the need—first to produce the film required.

Announcing two new films to improve the quality of recorded sound, each designed to fill a special requirement.

VA (Variable Area Recording Type Film) Makes possible optimum sound track density with lower recording lamp amperage and without necessity of forcing development in laboratory.

VD (Variable Density Recording Type Film) Characterized by high-resolving power—and low maximum contrast. This film made to conform with specifications approved by leading sound engineers.

A bulletin has been prepared, containing complete technical information regarding these new sound films—a copy will be sent to you upon request.

"THE DU PONT TRADE MARK HAS NEVER BEEN PLACED ON AN INFERIOR PRODUCT"

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Smith and Aller, Inc.

Pacific Coast Distributors

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Hollywood, California

The INTERNATIONAL PHOTOGRAPHER

Official Bulletin of the International Photographers of the Motion Picture Industries, Local No. 659, of the International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators of the United States and Canada.

Affiliated with
Los Angeles Amusement Federation, California State Theatrical Federation, Cailfornia State Federation of Labor, American Federation of Labor, and Federated Voters of the Los Angeles Amusement Organizations.

Vol. 1 HOLLYWOOD, CALIFORNIA, JUNE, 1929 No. 5

"Capital is the fruit of labor, and could not exist if labor had not first existed. Labor, therefore, deserves much the higher consideration."—Abraham Lincoln.

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The INTERNATIONAL PHOTOGRAPHER published monthly by Local No. 659, I. A. T. S. E. and M. P. M. O. of the United States and Canada

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Entered as third class matter February 13, 1929, at the Post Office at Los Angeles, California, under the provisions of Section 435½ Postal Laws and Regulations. Permit No. 1997

Subscription Rates—United States and Canada, $2.00 per year. Single copies, 20 cents

Office of publication 428 MARKHAM BUILDING, 6372 Hollywood Boulevard, Hollywood, California.

HEmstead 1128

The members of this Local, together with those of our sister Locals, No. 644 in New York, No. 666 in Chicago, and No. 665 in Toronto, represent the entire personnel of photographers now engaged in professional production of motion pictures in the United States and Canada. This condition renders THE INTERNATIONAL PHOTOGRAPHER a voice of an *Entire Craft*, covering a field that reaches from coast to coast across the nation.

The Sound Track

NEXT MEETING JUNE 6

The next meeting of the International Photographers of the Motion Picture Industry, Local 659, I. A. T. S. E. and M. O. M. O., will be held on the night of June 6, 1929, at the Hollywood Chamber of Commerce, 8:00 o'clock sharp.

OUR JUNE FRONT COVER

The charming picture which graces the front cover of **The International Photographer** for June is a product of the photographic genius of Alvin Wyckoff, president of Local 659, I. A. T. S. E. This picture was shot in the Canadian Rockies in 1928 when Brother Wyckoff was in that country making motion pictures for a British concern.

It will be the policy of **The International Photographer** to use for its front cover the finest products of the pictorial art of the members of Local 659, and all members having anything of exceptional beauty or novelty are cordially invited to submit it to our editor. The issues for all the rest of 1929, after July, are open.

TEAMWORK

The emulation of the splendid spirit of co-operation which was displayed on all sides in carrying on industrial and other activities to beat the Hun in the Great World War, should convey a lasting lesson to all trade unionists.

The trade-union movement is in its very essence, a comprehensive plan of cooperation, radiating as it does from local unions through central trades councils, State Federations of Labor and International Unions into the American Federation of Labor.

One of the great departments of the American Federation of Labor is that which has for its object the education of the workers to the great factor they should be to correct many existing industrial evils and injustices through concentration of their purchasing power, the Union Label Trades Department.

Of what avail is it to denounce unfair employers by resolutions which so often fail of their object for no other reason than our refusal to withhold our patronage from them. The very firms and corporations we seek to have treat their employes fairly by exposing unfairness on the one hand, we make arrogant by purchasing their output with money earned under union conditions, on the other hand.

This is not co-operation, but it is inconsistency almost criminal, and until we all come right down to "brass tacks" and become union members in fact as well as in name by cooperating with our fellows in every other trade, through the discriminating power of purchase, we are not going to make any noticeable nor permanent progress.

Demand the union label, shop card and working button at all times, for no trade unionist has any more moral right to purchase non-union and sweat shop goods than he has to take the place of a fellow-worker on strike for better conditions.

CHANGE OF ADDRESS

The following members did not receive their copies of the May issue of THE INTERNATIONAL PHOTOGRAPHER because of incorrect address on the Local files:

Ned Connor, Thomas Branigan, Stanley Cortez, Charles De Soria, Roy Kluver, Allan T. Roberts, Griffith Thomas, Wm. B. Stapp, John J. Jenkins, Edgar C. Barber, George Nogle, Wm. W. Nobles, Edwin B. Du Par, Milton Gold, Charles Van Enger, Michael Joyce, Clifford Blackstone, Harry A. Fischbeck, Paul Garnett and Robert A. Pierce.

Change of address or telephone number MUST be reported immediately to the Local office if you expect to share fully in the benefits offered by our organization. Do not put off notifying the office of such changes until you chance to come in personally. Either write or phone in immediately the change becomes effective. THIS IS IMPORTANT.

IT'S A GOOD IDEA

To always carry your Union card in the same case with your driver's license. You may be "out of luck" if both are not on your person.

THE FILM STRETCHER

In the "old days" the film-stretcher joke was considered good, but look at your assistant lugging three or four thousand-foot magazines down the main drag today and meditate. It has stretched—And How!

IN REVERSE

Called on Brother James E. Woodbury at his modern finishing studio, 5356 Melrose Avenue, last week and copied another of those pointed quotations from the collection beneath the glass top of his studio desk. This is a good one to paste in your hat to show to some of the chronic knockers who insist on spilling their opinions broadcast:

"You are 'in reverse' when you are more anxious to judge a man by his poorest piece of work rather than by his best."

Look for This Label



Boot and Shoe Workers' Union Stamp

On every pair of shoes you buy. Shoes are not Union Made unless they bear this stamp on the insole.

Oliver Sigurdson made the photographs for the Metropolitan Studios' SOUND RECORDING Truck layout in THE INTERNATIONAL PHOTOGRAPHER for May.

* *

Harry Jackson, Billy Tuers, Eddie Cohen, Billy Williams assisted by Jeff Gibbons, Jess Ivey and Warner Crosby have been synchronizing a Tiffany Stahl picture, entitled "Life." The picture was shot at Sennett's directed by James Flodo.

A GOOD SIGN

Several months ago United Garment Workers' Local No. 125 furnished Local 659 with a number of little booklets listing brand names of Union-Made ready-to-wear garments manufactured in Los Angeles.

The booklet is approximately the same size and shape as the International due-books and may easily be carried in the Du Pont due-book case.

The office force of Local 659 has been pleasantly surprised during the collection of dues for the present quarter to note that a large number of our members carry the United Garment Workers' buyer's guide in the same case with their due-books. We find upon questioning members carrying these books that the majority are clothed from shoes to hat in Union-Label clothing.

This is a good sign. The man who supports other Unions by purchasing Union-Made articles is invariably a loyal man to his own crafts' organization.

We are justly proud of this ever increasing spirit among our members. They who insist on purchasing only Union-Made products are fully awake to the tremendous significance of that greatest of all American Symbols of better working conditions, shorter hours of labor and fair compensation for services rendered—THE UNION LABEL.

Handling Sound Film

BY

R. H. McCULLOGH
of the Fox West Coast Theatres

THE practice of handling sound film in the laboratories, studios and exchanges has been the same as that used in the handling of silent film. Some laboratories have realized the responsibility which rests upon them in handling sound film, and it has been pointed out to laboratory executives that sound film must receive unusual care and attention.

When speech, music or sound is synchronized on film great care must be exercised in developing this film. Sound prints must not be over-developed or under-developed. The microscopic lines which represent the sound are developed along with the photograph and if these lines are over-developed it reduces the efficiency of the photo-electric cell to collect these rays and deliver the sound to the amplifier with the same volume as that of film which has been developed properly.

Many productions, lately, have been run with sound synchronized on the film and many difficulties have been encountered because the volume increased and decreased throughout the production so rapidly that it was almost impossible for the observer to control the volume properly.

It is realized that a male voice is much stronger than a female voice, but when the scenes change rapidly from one to another and the female voice is so increased in volume that it is very loud and harsh, a lot of comedy is produced along with the continuity of the story. Steps should be taken between the laboratories and cameramen to try and eliminate this difficulty.

We realize that the theatres are entirely responsible for the amount of volume in the auditorium, and that they are also responsible for the condition and the operation of the sound equipment. The recording in most productions has been very good on the film, but the laboratories are held responsible for the density of the film.

Considerable credit is due the Fox Film Studio for the manner in which they have handled the laboratory situation. We have noticed that both sound and photography are very good on Fox features and that their laboratories take particular pains in handling sound film. We have visited several laboratories, have watched them cutting prints and have found that they handle sound film in the same manner in which silent film is handled.

It was the practice of many laboratories, when cutting scenes out of silent prints, to allow film to be thrown on the floor until the cutter should come to the next scene where he would make the cut. Dirt and dust thus collected on the emulsion and many scratches would appear because of the way this film was handled.

Many laboratories have handled sound film in the same manner. It is very apparent that when dirt and dust collect on the sound track and, also, when scratches appear all of these things register as the sound track passes over the sound aperture. Every means of precaution should be taken in the handling of sound film in order to avoid the difficulties

(Continued on Page 21)

Efficient Silent . . LIGHT . . Adequate Economical

INCANDESCENTS

You will find in this assortment a lamp to meet every problem and a means for obtaining any desired light value. . . .

MR- 11 Utility Lamp
MR- 14 Bell Flood
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Domes, Clusters, Special Units
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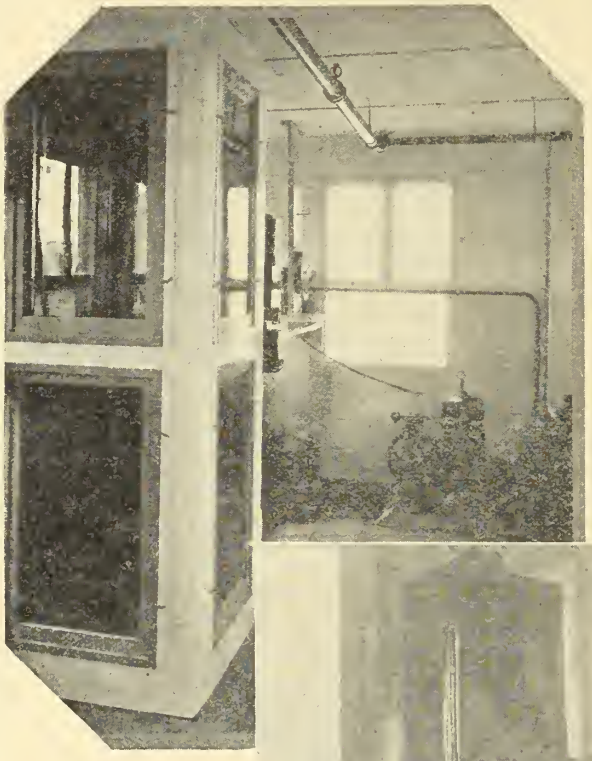
Studio Lighting Equipment

941 N. SYCAMORE AVENUE HOLLYWOOD, CALIFORNIA

Filmcote

The William Horsley Laboratories, 6060 Sunset Boulevard, Hollywood, announce their readiness to accept contracts for the treating of motion picture film, positive or negative, with Filmcote, a wonderful new rejuvenator for film just perfected after years of research and experimentation by the chemists and engineers of this old and honorable pioneer concern, under the direction of William Horsley himself.

As this issue of **The International Photographer** goes to press the first local contracts for Filmcote processing of film are being turned out by the Filmcote machine recently built for the William Horsley Cinema Studios Supply Company, according to plans submitted by Mr. Horsley, and it is already running at its peak of capacity, 100 feet per minute.





Top—General view of machine.
Below—Close-up of coating mechanism.

This machine, two views of which are here shown, was installed at William Horsley Laboratories about the middle of May and had its first run on May 21st, which was successful and without any imperfection of operation. It was away back in 1922, in October of that year to be exact, when the following self-explanatory letter was written.

It will be seen from this letter that even then the process now named "Filmcoting" by Mr. Horsley had its beginnings years further back, as when this letter was written, the process was well developed and had been practically proven.

Mr. Ames here addressed was President of the Atlantic Chemical Company in whose laboratories the chemical dressing now called by Mr. Horsley "Filmcote" was originated. Mr. Gardner who wrote the letter was at that time assistant manager of the M. G. M. studios, and Lewis W. Physioc, now technical editor of **The International Photographer** was head of the photographic department of that studio. The letter follows:

GOLDWYN PICTURES CORPORATION
Studios, Culver City, Calif.

October 30, 1922.

Mr. W. W. Ames,
Atlantic Chemical Company,
Irvington, N. J.

Dear Mr. Ames:

Your letter of October 14th has been held unanswered subject to my return to the Studio, after an enforced absence of nearly five weeks. Mr. Physioc, however, went right ahead with tests but made no report on them until I had got back on the job. We have found that your process prevents approximately 90 per cent of the usual fine scratches caused by the projecting machines, which was proved by the test of film run through the projection head over five thousand times.

The strength of the sprocket holes is increased over 25 per cent; this strength being principally added by the increased flexibility of the film. Renovation is made comparatively simple and easy, as a cloth dampened with plain water removes practically all surface soil or dirt.

By the use of your process, it is possible for the Laboratory to take advantage of the beautiful sepias which have hitherto been abandoned because of the damage caused by oil spots. Your process so protects the mat surface that the oil cannot affect it and leaves the oil in such a condition that it can easily be removed by wiping.

We also feel that there is additional brilliancy given by your process which Mr. Physioc explains is the same sort of effect as is caused by varnishing a painting. Your process also prevents the effect of violent atmospheric changes, the result of which is dried out film, which buckles and throws the projected film in and out of focus.

It also eliminates the necessity of waxing prints, which has been a very dangerous process heretofore, causing gummed sprocket holes and melted wax running on the body of the film itself.

While we have made no actual tests as to the use of your process for the preserving of negatives, nevertheless we are confident from the careful inspection of this process on positive stock that the use of it on negatives would not interfere with the printing quantity, and that it would act as a preservative which should keep the negatives in excellent condition indefinitely.

At the time these negotiations were in progress the Filmcoting process was an expensive affair. Mr. Physioc, in his report to Mr. Gardner, at the time, said that the excessive cost was the only argument against it, but in the Horsley researches that objection has been eliminated and, in addition to this economic consideration, the quality of Filmcote has been refined and in every way improved until now Mr. Horsley is justified through actual practice in making these claims:

1. Projection of the emulsion side of film against abrasions and scratches.

2. Sealing the moisture within film which is so essential.

3. Eliminating the necessity of waxing.

4. Adding strength especially to sprocket holes.

5. Makes it possible to clean oil spots and dirt from emulsion.

6. Complete protection to sound track.

The sum total of these claims means that the life of film treated by "Filmcote" process is enhanced approximately 100 per cent as borne out in practical tests.

One important reason why the "Filmcote" process was so slow in being brought into commercial use was the lack of an efficient machine with which to spread the "Filmcote," but this has been successfully worked out, as previously stated, through the intelligent co-operation of Messrs. Brown, O'Donnell and Rose, of the Cinema Studios Supply Company and their engineers.

These machines for the application of "Filmcote" are now available or footage will be accepted for processing at a per foot price.

Emotional Value of Color

BY

LOYD A. JONES

Summary of a paper and demonstration presented before the Society of Motion Picture Engineers, Tuesday, May 7th, at the Bell Telephone Laboratories, New York.

[*Loyd A. Jones needs no introduction to the technical world of motion pictures. His renown is of international scope and he is particularly known to the cameramen of Hollywood. For years he has been head of the Physics Department of the Eastman Laboratories and his pronouncements are always interesting and important to the craft. This particular paper in the original form is highly technical but it is only because of our limited space that a summary alone can be here presented instead of the entire script—Editor's Note.*]

A new emotional range opened up to the sound motion picture art of today with the announcement, at the semi-annual meeting of the Society of Motion Picture Engineers in New York, that film tints have been worked out which will not destroy the sound-reproductive qualities of the film, and which can closely simulate the lighting of any interior or exterior scene.

The achievement follows work on the problem by the Eastman Kodak Research Laboratories ever since the advent of sound as a serious factor in the motion picture industry. The new development means that motion picture audiences soon will see their "talkies" in tints similar to, and even superior to, those used by the producers before the advent of sound forced the pictures back into the neutral gray tones of the early days of the film industry.

The announcement occurred in a highly technical paper read to the Motion Picture Engineers by Loyd A. Jones, head of the Physics Department of the Eastman Laboratories, the man who is principally responsible for working out the tints.

AFFECTS SOUND-ON-FILM MOVIES

The development of the new tints does not mean that sound pictures will go into natural colors—which so far have met with other technical difficulties that have prevented their common use with sound. What it does mean, is that the sound-on-film systems of articulate motion pictures (Movietone, Photophone, etc.) will be enabled to project scenes in the all-over tints that give the blue of the sea to views needing that quality, the delicate orange of peachblow to close-up love scenes, a cheerful glow to firelit interiors, yellow brilliancy to sunlit scenes, emotionally cool green to the forest, repressive dark blue to murky night views, and the ceremonial color of fleur de lis to pompous occasions of ritual.

The future that Mr. Jones sees in the combination of tints with sound motion pictures, is that "careful study and experimentation may lead to the development of this language or symbolism into a powerful emotional tool in the hands of the master motion picture dramatist."

Although some tints have long been in use with the silent motion pictures, the tints now perfected for sound pictures are more delicate and have a variety twice as great as the soundless tints. Mr. Jones' announcement to the Motion Picture Engineers listed sixteen tints and a neutral seventeenth which imparts a silvery tone to scenes that would ordinarily be left untinted. The tints in use for silent motion pictures were only eight in number.

The new tints are spaced approximately equally along the gamut of visible colors, separated one from another by about four numbers on the standard Ridgeway Hue Scale, or, in common terminology, about eight just perceptible hue changes apart.

The process of printing on tinted positive sound film

(Continued on Page 22)

Wm. Horsley Laboratories, Inc.

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The Oldest Commercial Laboratories in the U. S. A. and the Only Independent Laboratories Equipped with Spoor-Thompson Developing Machines.

A 100 PER CENT ARC LIGHT PICTURE WITH SOUND

In their reviews of "The Black Watch," Fox Movietone feature, which had its premiere at Carthay Circle recently, the critics of the Los Angeles metropolitan newspapers referred to the photography in these terms:

Times—Photography is nothing less than superb.

Herald—No picture in the brief history of the Talkies has approached the "Black Watch" for the vivid union of the art of photography with that of sound recording.

Express—As a technical specimen of the progress of dialogue pictures "The Black Watch" is unsurpassed.

Examiner — Reveals brilliantly clever effects in synchronization and photography.

But the names of the artists who put the beauty into the picture were not worthy of mention, apparently, for in every case was their identity ignored. Some day this will be changed.

It is worthy of note by all people interested in motion picture production, however, that this picture, whose photography is so enthusiastically lauded by all who have seen it, was shot exclusively with carbon lights—a 100 per cent arc light picture.

On the Fox lot the so called "hard" lights seem always to have had the call, but "The Black Watch" is an outstanding example of what can be achieved in the way of carbon lamp illumination when this method is intelligently handled.

The observer of "The Black Watch" photography will note first of all that the sets and people were not "burned up" as has been so often done in cases of injudicuous application of arc units.

On the other hand it will be observed that the light sources were skillfully disposed to make the most of the comparatively few units used and that somebody at Fox has a head full of lighting brains where carbon lights are employed. At no time during production did the arc lights interfere with the sound and at no time was it found necessary to shoot from a booth.

And now the gentle reader is to be let into a profound secret. S-h-h. The members of the camera crew responsible for the beautiful photography in this picture were Joe August, Irving Rosenberg; Assistants H. Webb and John Van Wormer, with Clarence Hewitt on the stills, and the direction of lighting was in the hands exclusively of Brother Joe August.

All L. A. papers and screen magazines take notice.

———o———

Billy Marshall has been selected to photograph Mal St. Clair's first picture for R. K. O. "Forty Ninth Street." Cast includes The Three Moore Brothers.

THE ARC RETURNS

Among the difficulties to be overcome with the advent of sound were the various noises broadcast by the arc lamp. Considerable investigation was done by the arc lamp manufacturers, but it was found that no set formula could be given for quieting the lamps as each studio presented a different problem.

There are two types of sound to be taken into consideration, namely: The mechanical sounds from the motors and gears of the lamps, and an audio-frequency wave broadcast through the arc stream and originating at the commutator of the generator. The frequency of this rpiple, as it is called, is dependent upon the number of commutator bars and the RPM of the armature.

The William Fox Studios are using arcs largely in their sound productions. They have been very particular in adjusting their lamps so as to get a minimum of mechanical noise and they see that the commutators of their generators are very smooth and that the brushes do not chatter or spark. By co-operation of their sound department they apparently do their recording at a level that not only gives them considerable freedom with their lighting equipment, but also allows them to use camera-equipment without the camera-booth

Paramount Famous Lasky are using all of their arc equipment with as much freedom as when making silent pictures and here considerable credit is due to Mr. Earl Miller, electrical chief, for his efforts in making the arc lamp absolutely silent. It seems that the sensitivity of the microphones used in their recording on sound stages demands the extreme in silence, and Mr. Miller has placed cutout switches on lamps used near the microphones so that the motors can be turned off during actual shooting.

He has also built coils to choke out the commutator ripple and is furnishing the photographic department with all types of arc light equipment that they can use without fear of trouble from noise.

Other studios are conducting experiments equally as satisfactory and it will probably be only a short time before the cinematographer will have as much freedom in choosing lighting equipment as before sound arrived. The arc light has a very definite place in motion picture photography and its continued success has only been a matter of adapting it to the work at hand.

———o———

Photographer called to photograph housewife.

Photographer: I came to take a still.

Housewife: How did you know we have one?—Mrs. J. P. Willits, 1308 Bates Ave., Hollywood.

* *

"Is this the pleasant expression you want me to take?"

Photgrapher: "Yes."

"Well, hurry up, it hurts my face."

"... a color so pure and so beautifully blended that every sensation of life comes as if by magic to the screen ..."

—From International Photographer for February.

Vitacolor

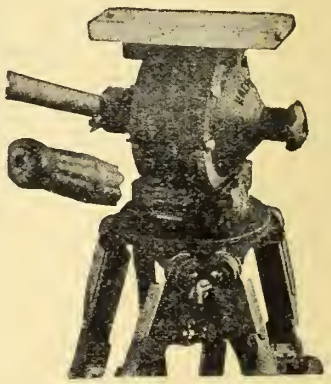
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JOE AUGUST

IS THE PHOTOGRAPHIC TURNING POINT

IN

SOUND PICTURES

SEE IT FOR YOURSELF—**NOW!**

P. S.—EASTMAN PANCHROMATIC—TYPE TWO—OF COURSE

Wide Film

BY

ARTHUR REEVES

The advent of practical motion pictures began with an order placed with the Eastman Dry Plate Company, September 2, 1889, by Thomas A. Edison.

September 2, '89.

Eastman Dry Plate Co.

Dear Sir:

Enclosed please find sum of $2.50 P. O. O. due you for one roll Kodak film for which please accept thanks. I shall try same today and report—it looks splendid. I never succeeded in getting this substance in such long pieces.

Sincerely yours,

W. K. L. DICKSON.

P. S.:—Can you coat me some rolls with your highest sensitometer? Please answer.

Mr. Dickson was Mr. Edison's most trusted employee and worked directly under him on these experiments.

At this time Mr. Edison had perfected the phonograph. There is an old Chinese saying: "One hundred tellings are not as good as one seeing." This appealed to Mr. Edison and having perfected the phonograph for the ears he set out to make moving pictures for the eyes.

Mr. Edison and his staff started experiments on moving pictures, when he was called to go to the Paris Exposition with his phonograph. Before he departed he issued instructions as to what should be done and adding: "Work like hell."

His return is quoted from a book published in 1895 on the Life of Edison, written by William Kennedy, Laurie Dickson—Antonia Dickson, with a foreword approval by Edison:

"The crowning point of realism was attained on this occasion of Mr. Edison's return from the Paris Exposition of 1899, when Mr. Dickson himself stepped out on the screen, raised his hat, smiled, and spoke these words of greeting: 'Good morning, Mr. Edison, glad to see you back. I hope you are satisfied with the Kineto phonograph.' "

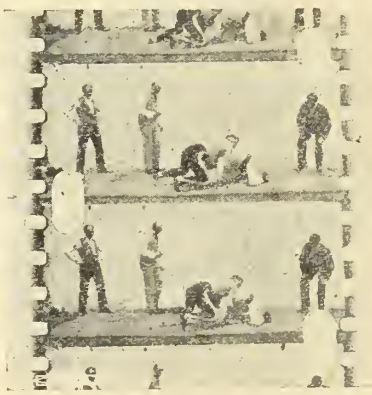
This was the first talking picture — it being the first to be synchronized with a phonograph recrod.



Selig Film, 1894

In 1893 Col. Wm. N. Selig, retired, (now one of the oldest cameramen in the business) built his own camcamera and projector. He used the standard width film and made his own perforator which was worked by hand. His first pictures were shot in December, 1893. This cut of his first picture film made in January, 1894, shows the sheep running down the gangway at the Chicago Stock Yards. The Omaha Exposition of 1898 wanted moving pictures made and was in favor of the size used by the Biograph Company. In order for Col. Selig to get that contract he had to build a camera and projectors that could use the same size Biograph had been using. A few years later he made one of the first commercial pictures for the Canadian Pacific Railroad on this wide film.

On May 20th, 1895, in New York City, Mr. Woodville Latham projected the first actual moving picture upon a screen. Previous to this all moving pictures were viewed by looking into a box, called a peep show. Mr. Latham is the inventor of the feed sprocket and the loop for feeding the intermittent. At this time he came out with his Eidoloscope using film as shown in figure actual size. You will note the oval holes cut through the frame line in each picture. As the projector had no shutter, an electrical contact was made through these oval holes that lighted the arc light each time the intermittent brought the picture into position. This was the first wide film.



Latham Eidoloscope Film, 1895

Enoch Rector, an inventor and promoter, had a camera and projector that used a film 2-3-16 inches wide. The Corbett-Fitzsimmons prize fight at Carson City, Nevada, March 17, 1897, was photographed by Enoch Rector's Veriscope; during this fight 11,000 feet was shot.

At this time prize fights and news events were the only pictures that could be made with a commercial value.



American Mutoscope—Biograph Size Used in 1899

Wm. A. Brady and O'Rourke promoted a prize fight November 3, 1899, between Jeffries and Sharkey, and interested the American Mutoscope and Biograph Company in making moving pictures of the fight.

A new problem now presented itself because this fight was to be held at Coney Island at night. The Biograph Company called in its technical advisors to solve the problem. This job was turned over to none other than Billy Bitzer. Although Bitzer does low key lighting, on this fight in 1899 he used 400 arc lights over the ring. It must be considered these lights were not as powerful as those of today.

This fight went 25 rounds—3 minutes each—1 minute rest. Four cameras were on the job. One was always running. The film went into the cameras from the magazine unperforated and was perforated at the aperture plate just previous to exposure, with one hole on each side. There was a small ruby light inside the cameras with a red glass window so the cameraman could watch for buckles. These cameras buckled several times during the fight.

The film used was 2 23-32 wide and the picture was 2¼ inches high; the standard speed today is 90 feet per minute, but at that time it was 320 feet per minute. Over seven miles of film was used on this fight. This picture was given to the public at 5,575 feet.



Biograph Standard



Spoor's Natural Vision

Nothing New Under the Sun

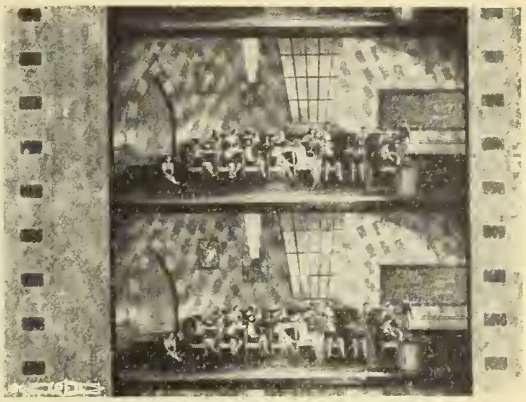
During the past ten years we have heard rumblings of stereoscopic pictures that used wide film. This has been referred to as a new thing or a new process. There is nothing new about it, nor can a size be patented that has been used thirty-six years ago.

Mr. George K. Spoor, of the Essanay Company, of Chicago, has his Natural Vision Pictures. This film, 63 m. m. wide, is shown in the figure actual size. It is reported that scenes of Niagara Falls that were projected portrayed such a natural vision that the audience ducked from the spray.

Another wide film is known as the Widescope. This process gives great promise because it bends the film and holds it on a curve, keeping the two sides of the film in the same relation to the lens as the center. The film in the figure is actual size.



Widescope



Fox-Grandeur

Now William Fox is making his Grandeur Pictures. This film is 70 m. m. wide with sound track and picture as per figure, actual size. With this large picture and large sound track the results should be marvelous.

Our theatres throughout the country have been constantly getting larger and larger and the picture screen has remained the same size.

The width of film should be in proportion to the width of the stage. It can be viewed from any angle without distortion. With the advent of wide film the public will be the judge and the combination of sound and wide film will be here to stay.

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Lasky Levities

The Victor Fleming troupe, making "The Virginian," are in Sonora. The supervising cameraman is Roy Hunt, ably assisted by Al. Gilks, Chas. Lang, Harry Hallenberger, Clif. Blackstone, Bill Rand, Geo. Clemens, Eddie Pyle, Fleet Southcott, Eddie Adams, Art Lane, Cliff Shirpser, Harold Wellman, and Wilbur Wright. In other words, the success of the picture, photographically, is assured. Directorially it should be fine for Victor Fleming was once a cameraman. Nuf Sed.

The "Lookie-talkie" boys have been quite busy, thank you! For proof, the married cameramen aren't sure they are married and the single fellows are sure that their sweeties don't intend ever to get married to a cameraman. Well, perhaps the camera game does have its advantages!

Can you imagine a sound cameraman, becoming a radio operator on a battleship, radioing the following message: "Your order to 'sync' the enemy has been carried out; they are 'sunk' and we are looking for other fleets to 'synchronize'. " That is as bad as Buddy Williams walking a block on his toes the other night because someone turned on a red porch-light as he passed. Speak up, Mr. Interlock-u-tor!

Archie Stout, feeling out of sorts because he shot a very important scene with the shutter closed, walked over to the assistant director and said: "Dick, I'm sunk," whereupon the said Dick turned and yelled "Quiet!" Funny about force of habit and sound pictures, ain't it?

Wonder if "BROADS" were given that name because they were "hard" lights? And why shouldn't an "Inkey" give us a dark light instead of a yellow one? And how could there be a DARK LIGHT- And if there's no water in a flood light, why are baby spots used on grown-ups? I was merely asking! And speaking of "actinic" light—

With more than thirty-five second cameramen and assistants working under the six-months schedule plan it looks as though Paramount intends to keep busy. Virgil Miller is figuring "bunk" space in his office that he may rest his weary head without having to go home at all during the rush period. Wonder if his wife approves of that!

EDDIE CRONJAGER says that sound pictures are silently making themselves heard in the industry, unless he's slightly off his sound-track. But Rex Wimpy is wondering if Silent pictures are Sound investments. Vic. Milner says that if the Salvation Army's success was due to a Booth, then his last few pictures will prove the salvation of the industry.

"Stone walls do not a prison make,
Nor iron bars a cage."
But one little booth, is enough, forsooth,
To quicken coming age.
With cells now made of celotex,
And glass that will not break,
The author of these first two lines,
Was a camerman—no mistake.

Paramount's new loading room, now building under Virgil Miller's direction, gives promise of being the finest in the industry.

Harry Fischbeck's favorite song is "The Sawdust Trail," sung to the tune of "The Utah Trail," with variations. His last picture, featuring Clara Bow, in "Dangerous Curves," is a circus picture, and Harry claims he has been very "in-tent" on this production.

HENRY GERRARD is shooting Wellman's big production, "The Woman Trap," having started May 22nd. Mellor, Pierce, Lane, Mayer, Ahern and Martinelli are his co-partners in crime.

Mendes' next production, "Illusion," will be handled by HARRY FISCHBECK, with Stout, Pyle, Merland, Clothier, Fapp and Rhea explaining the more difficult problems that beset a supervising cameraman.

Eddie Cronjager will be at the helm of Cromwell's next picture, featuring George Bancroft. His colleagues are Metty, Williams, Knott, Brooks, Tripp and Wellman; nothing to worry about there.

With Milton, Wallace, Brown, Lubitsch, Sloman, Tuttle, Berger and Sutherland scheduled for production up to July first, it looks as though the Paramount Camera Department staff will have to take their vacations, if any, late next fall. The camera boys are busy greasing lenses, shining cranks, polishing tripods, taking turkish baths (training for booth service) etc., preparing for this big production schedule.

---o---

RUBBER

Handsome Cleve Beck, of San Francisco, fourth vice-president of I. A. T. S. E. and M. P. M. O., was in Hollywood recently. When he learned that the Columbia Pictures Corporation had sent a crew of men to San Diego he asked that they inspect his rubber plantation and report on the crop this season.

SWEEPSTAKES

Brother Clifton L. Kling, for the fourth time, has been awarded the prize for the best still of the month by SCREENLAND Magazine. The still which won this time was a shot made in Busch Gardens, Pasadena, while filming "Four Feathers," featuring Fay Wray and Dick Arlen.

News!!

Industrial

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Here Is Where We All Get a Break!

Sound production has made it possible to secure EASTMAN and DU-PONT Panchromatic Negative in considerable quantities. We have installed a complete plant for the testing of every roll and the segregating of it into 100, 200 and 400 foot lengths.

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FOR ONLY **2½c** PER FOOT

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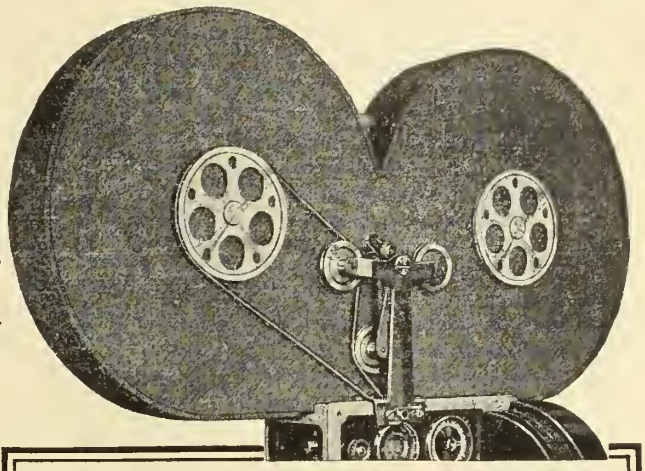
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Mention this add and get a sample roll free to test. Remember this is a 100 per cent Union organization—members Local No. 659 I. A. T. S. E., International Photographers.



BELL & HOWELL
precision and accuracy *have silenced the camera mechanism!*



BELL & HOWELL engineering has produced cameras for sound work with all mechanical noises eliminated. Fiber gears—solid bronze bearings—sound-absorbing felt linings—the removal of all lost motion—these are the factors in this important development.

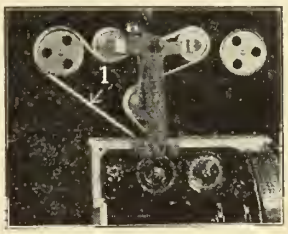
Sound-Proof Magazines with endless fabric belts and silent belt tighteners also contribute to the perfection of operation that permits such equipment to be placed within eight or ten feet of the microphone *without requiring a camera booth!*

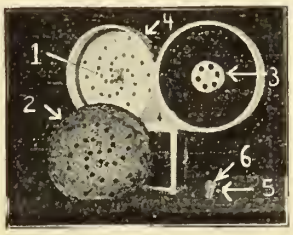
Holes drilled in the back and cover of the magazine drums to interrupt sound waves, and the outside covering of sponge rubber indicate the thoroughness of the engineering that has made such a development possible.

Consultations are invited on Sound Recording Installations.

Above: B. & H. 100-ft. Sound-Proof Magazine equipped with Silent Belt Tightener, that keeps uniform tension at all times, and endless fabric belt.

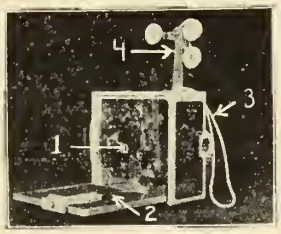
Right: Silent Belt Tightener on B. & H. 400-ft. Magazine. 1. Endless fabric belt.

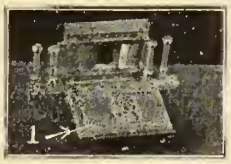




Left: 1000-ft. Sound-Proof Magazine taken down—1. Holes drilled in back of Magazine drums—2. Front on Magazine with rubber cover removed—3. 3-inch spool—4. Rubber outer-cover—5. Film Roller—6. Oilless bearing of film roller.

Right: Speed movement of B. & H. Camera equipped for sound work—1. Check pawl Super-Speed movement—2. Felt lining of camera door—3. Endless fabric belt—4. Belt tightener.







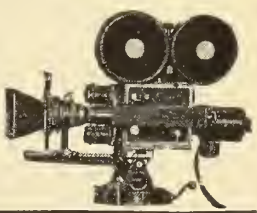
Above: B. & H. check pawl Super-Speed movement—1. Driving finger—2. Formica (fiber) gear.



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The Bacon is Brought Home



JACKSON J. ROSE



HOWARD E. HURD



ARTHUR REEVES



ALVIN WYCKOFF

COMMITTEE ON WAGE SCALE AND CONDITIONS, LOCAL 659

THE beginnings of Local 659, I. A. T. S. E. & M. P. M. O. International Photographers of the Motion Picture Industries are not shrouded in mystery.

The inception of the organization is of such recent date that the several phases of its development may be easily traced and dates and actions of its promoters definitely fixed.

Lord Macauley, English essayist, historian and poet said in effect that as few as four men working together, harmoniously, to a common end, could achieve anything.

This has been proved true even in America politics and the writer, personally, knows of an instance in American business where four men built a tremendous success upon the British nobleman's precept.

In the case of the building of Local 659 there were more than four men concerned in the incubation of the idea and in the carrying out of the plans, but at that the group was pitifully small.

However, as an exhibition of sheer courage, perseverance, intelligence, self sacrifice and hard labor nothing to equal it has been seen in the ranks of cameramen the world over and even the veterans in the highest councils of Organized Labor have paid tribute to the achievement of the group as represented in the wage scale and bill of working conditions signed with the motion picture producers on May 7, 1929, and presented to the membership of Local 659 at the Chamber of Commerce in Hollywood, on Sunday night, May 12, 1929.

In February, 1928, the first step in the organization of a union of the cameramen of Hollywood was taken —a meeting of craftsmen sympathetic with the idea being held at the home of Alvin Wyckoff, subsequently honored by election as first president of Local 659.

For a long time conditions of working among cameramen in the studios had not been satisfactory and efforts to secure an agreement with producers had failed. Wages were inadequate and abuses were common practice. It was, therefore, decided among the handful of pioneers of this movement that only the strong hand of organization could bring about the needed reforms.

It was not until the second meeting that the matter crystallized and a committee was appointed to draught a constitution and by-laws. This was a difficult job, as all possible conditions had to be anticipated—those of production and those of trades union procedure—but a satisfactory working document was secured and the promotors came into the open in a meeting held in Ogden Hall.

By March 10, 1928 (75) names had been signed to an application for membership in the I. A. T. S. E., as the Hollywood Branch of Local 644, in New York and, armed with this, Roy Klaffki was sent to Detroit to attend the bi-ennial convention of the I. A. T. S. E. & M. P. M. O. This was in June.

On June 4th Mr. Klaffki met with the representatives of Local 644 and an agreement was reached at once and the new organization became not only the infant of the I. A., but an integral part of the New York Local.

From Detroit Klaffki went to New York to confer with President Canavan regarding a separate charter for Hollywood for it had become apparent, almost at once, that the arrangement made at Detroit would prove unsatisfactory because of the wide separation of the two groups.

President Canavan ond Local 644 were favorable to separation, and August 1, 1928(became a red letter day in the history of the new organization as the date upon which it received its charter as Local 659 I. A. T. S. E., the charter members being, Alvin Wyckoff, Frank Good, Charles Stumar, Ira Hoke, Charles Boyle, Mervyn Freman, Roy Klaffki, Jackson Rose, William Tuers, Chester Lyons, Arthur Reeves, Faxon Dean, L. Guy Wilky, Reggie Lyons, Paul Perry.

In the meantime the new Local had to fight opposition in the studios and among cameramen who did not favor the union affiliation, but in spite of this situation the membership increased with amazing rapidity and an enthusiasm developed that promised well for the project. An office had been opened in the Markham Building, 6372 Hollywood Boulevard, Hollywood, on May 18th and Local 659 was a going concern. In those days the toddling child was feeling its way with many things to learn and little to work with for it was born without benefit of capital except the meagre dollars supplied for necessities by the devoted few who had called it into being.

On August 1, 1928, Mr. Howard Hurd, of the M. G. M. Studios, by unanimous action of the Board of Executives, was offered the post of Business Representative of the infant Local and he entered upon the duties of the position almost immediately. Mr. Hurd is a graduate law student, and, what constitutes his greater value to the cameramen, is that during his long years of studio experience he has been close in touch with the members of the craft, knows them individually and understands their problems—an ideal incumbent for this all important post.

There were many hard knocks and to add to the general joy jurisdictional differences arose with the New York Local and the Board of Executives appointed a special committee composed of President Wyckoff, Financial Secretary Roy Klaffki and Business Representative Hurd to go to New York and treat with Local 644.

An agreement was signed and while there the committee met Mr. Guy L. Currier, Chairman of the Employers' Arbitration Committee who arranged for them to meet with a producer's committee composed of Chairman Currier, Nicholas Schenck, Sidney Kent and Jack Gains for conversations on a wage scale and working conditions for the members of Local 659. This was in September, 1928. These conversations culminated in an agreement to the effect that both parties should make a thorough survey of the situation as affecting the cameramen and one committee returned to Hollywood to undertake

the work. A questionnaire was drawn up and submitted to the membership, which, by this time, was rapidly nearing the 100 percent mark among the cameramen of the West Coast, and the information elicited was illuminating as well as amazing.

This mass of evidence formed the basis for an agenda to be used in the approaching meetings to be held with the Producers Committee, the members of which had been making a survey of their own.

From this evidence was adduced the suggestions the recommendations and requests looking to the establishment of a satisfactory wage scale, the abolishing of abuses and the institution of working conditions in line with the welfare, prosperity and peace of the craft.

While all this was doing the new star in the I. A. T. S. E. firmament was reaching out for desirable affiliations and, as quickly as contact could be made, Local 659 was recognized by and working with the California State Theatrical Federation, California State Federation of Labor and Los Angeles Amusement Federation. These desirable contacts made the going easier for the new Local and greatly strengthened its hand.

When the results of the survey had crystallized into a document setting forth the views of the cameramen, the findings together with recommendations, were submitted to a committee composed of President Canavan; International Representative Frank Carothers, A. L. Berres, representative of the motion picture producers in union affairs.

There were many delays, mainly because of the members of the committee being unable to synchronize their time owing to illness and absences abroad, but progress was made though its slowness was depressing to the waiting members of Local 659.

On December 11, 1928, a brief of arguments showing why the Wage Scale and Conditions should become at once effective was filed with President Canavan, but delays persisted until well along into the present year when expectations of settlement began to be entertained and, on Mav 7, 1929, the famous document was signed and the labors of the devoted workers were crowned with success. But it was not until Sunday night May 13, that the great day came—the time of promulgation of the good news to the full membership of Local 659.

The affair was held at the Hollywood Chamber of Commerce and the attendance represented every member that was not working or absent on location. On the platform, in addition to the Board of Executives and Officers of 659, were Frank Carothers, secretary of the International Committee; Ted Eckerson, Business Representative for Operators Local 150; William Scott, Business Representative for Stage Employees Local 33; Lou Blix, Business Representative for Studio Mechanics Local 37.

President Alvin Wyckoff was in the chair and delivered the opening address stressing loyalty to the organization and thanked the membership for their patience and co-operation.

Editor Snyder made a short talk on THE INTERNATIONAL PHOTOGRAPHER and set forth briefly its plans and purpose. He was followed by Messrs. Carothers, Scott, Eckerson, Blix who paid enthusiastic tribute of admiration to the members of the committee of Local 659, who had so courageously and intelligently faced the brunt of the battle and had brought home the economic and ethical "bacon" while at the same time retaining the respect of and an entente cordiale with the producers and their representatives with whom the committee treated.

The speakers agreed that the wage scale and bill of working conditions negotiated by the Committee set the kind in the history of the A. F. of L. and Brother Scott suggested life memberships in Local 659 for Brothers Rose, Reeves, Wyckoff and Hurd as a fitting reward for their labors.

Arthur Reeves spoke briefly on the matter of equipment rentals and Roy Klaffki, one of the stalwart union boosters from the inception of the movement, expressed his gratification on the satisfactory outcome of the negotiations.

To Chairman Jackson Rose of the Negotiations Committee, was given the honor of reading the official report to the assembled members and, as he proceeded to elucidate the provisions of the agreement, he outlined briefly the various steps taken during the conversations and recited the almost insurmontable difficulties the Committee found facing it at all times. Brother Rose performed his task in a workman-like manner and was heartily applauded as were all the speakers.

Business Representative Howard E. Hurd gave the members instructions in regard to matters attendant upon putting the new wage scale into actual practice and the meeting adjourned after the photographer had done his smoky work.

As the meeting broke up a printed copy of the "Wage Scale and Conditions" was presented to each member and, after an open forum on the curb in front of the Chamber, the consensus of opinion formed prevailing was that the cameramen of the Motion Picture Industry in Hollywood had attained their objective and that the new conditions of service would prove not only a blessing to the cameramen of all classes and their families, but also to their fellow craftsmen in other lines, to their employers, to the producers, and to the industry in general, through increased efficiency, the elimination of waste and happier living conditions.

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It is worthy of especial mention that in February, 1928, we were honored by a visit from President Canavan and Secretary Richard Green, who evidently were convinced that the matters we had in hand were of sufficient importance to warrant their expenditure of time and money for the trip. Attorney Guy M. Currier, chairman of the Producers' committee, accompanied them.

In this our local was very fortunate for, not only did our president and secretary advise as to the proper manner to proceed, but very greatly assisted the min drawing up the present agreement. Mr. Currier proved a man of noble worth and sterling character and had it not been for his good judgment and timely suggestions the committee would have had a more difficult time with the completion of the work. They had many conferences with these executives and are proud to say that they had the entire confidence and respect of the distinguished visitors.

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COMING FAST

WASHINGTON, (D. C.)—Marked gains have been made by Organized Labor in the first three months of the "double the membership" campaign of 1929, reports to American Federation of Labor headquarters show. Word from all over the country indicates Trade Unionists are co-operating heartily in the campaign. Some Unions have been very active during January, February and March, while others have not yet swung into the campaign with full energy, but have planned more aggressive work in the months to come. One of the Unions which has announced plans for a campaign is the Brotherhood of Railway Clerks, which began a six months' membership drive on April 1.

City centrals are lining up in good shape: Birmingham, Ala., Organized Labor will make an intensive campaign beginning April 1. Philadelphia Unions also will make an energetic campaign. Los Angeles also has an effective campaign under way that is unique in its way. As far as its resources permit, the A. F. of L. is helping city centrals by assigning organizers to them during their campaigns.

Frank Morrison, secretary of the A. F. of L., believes that solid progress has been made so far this year, and that 1929 will close with notable gains in Labor's ranks. He said that he had reported a gain of 26,000 Federation members since the last convention at the February meeting of the Executive Council and that he expected to be able to report still further gain at the next meeting, to be held in Washington, beginning May 28. He said that even greater efforts are needed, and he charged every Trade Unionist to get into the campaign with a vim, determined to make 1929 a notable year in Union progress.

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ALL MEMBERS TAKE NOTICE

Our good friend, Edward O. Blackburn, general manager of J. E. Brulatour, Inc., desires that all members of Local 659 keep in mind that the new Eastman Service building and all it contains is for the use of all the several classifications of cameramen and nothing will please Mr. Blackburn more than to have the building constantly in use. That's what it's for. Use it.

Silencing the Bell & Howell

BY

A. S. HOWELL and J. A. DUBRAY

[*This paper, under the title, "The Motion Picture Camera and Sound Pictures," was read by Joseph A. Dubray at the Spring Convention of the S .M. P. E. held in New York City, May 1929, and has become a part of the S. M. P. E. Transactions. It has to do with the silencing of the Bell & Howell for use in photographing sound pictures and will be found interesting and timely by users of this camera.— Editor's Note.*]

PART ONE
SILENCING THE MOTION PICTURE CAMERA

The necessity of eliminating all extraneous noises in sound recording Cinematographic work is self evident and too well known to warrant the entering into any discussion on it.

It is also well known that the elimination of such disturbing noises is of much greater importance when scenes are taken within the studio stage than when the work is conducted in outdoor locations.

Previous to the advent of sound pictures, the motion picture camera was devised and constructed with a reasonable disregard of the mechanical noises produced by the rather complicated operation of the instrument.

With the advent of Sound Pictures, these noises have relegated the Cinematographer and his apparatus to a sound-proof booth imposing upon him a number of serious limitations which conflict with the freedom of action necessary for obtaining the fine photographic results which have characterized modern motion pictures productions.

The necessity of eliminating the camera noises was immediately apparent to all interested in the new Art and engaged the immediate attention of camera manufacturers and of the Engineers responsible for the developments of the instrument.

The rapid but extremely careful and dispassionate examination, brought forth the necessity of departing from some principles of construction which were considered fundamental to the good functioning of the motion picture camera.

On the other hand, sound synchronized pictures eliminated the possibility of "cranking" the camera by hand and the introduction of a motor drive permitted the mechanical engineers to attack the problems inherent in the silencing of the apparatus with an entirely new conception of the heretofore considered essential attribute of smoothness of running.

This new condition permitted the substitution of all ball bearings existing in the camera for solid bronze and hardened steel bearings so adjusted that all clearances and tolerances were reduced to a minimum.

The lubrication of the solid bearings presented new problems insofar as the apparatus is called to perform under unusually trying conditions. Provision has been made inorder to render these parts readily accessible at any time and although it is true that the lubricating of the silenced camera demands more attention and greater constancy than the regular camera, it can be performed with perfect ease and only demands a normal amount of care.

The noises particular to the enmeshing of metal gears have been eliminated by alternating them with formica gears.

The gears connecting the main drive shaft and the intermittent mechanism have been cut spirally so that three teeth are constantly enmeshed, thus giving assurance of perfect smoothness in running.

An extremely interesting problem was brought forth by the necessity of eliminating the noises proceeding from the rewinding of the film in the take-up section of the magazines.

The take-up of film was happily solved from the early days of Cinematography by the use of a spring belt connecting the drive movement of the camera with the take-up pulley of the magazine.

This belt was kept sufficiently loose so as to avoid an excessive tension, and sufficiently taut to assure an easy winding of the film.

The spring belt would slide and skip over the magazine pulley, whenever the speed of the latter was reduced by the increase in size of the roll of film being rewound in the magazine.

For a number of years this arrangement gave perfectly satisfactory results and the noises produced by the skipping of the belt as well as those produced by the joint of the belt when hitting the take-up pulley, were considered as unavoidable and of very little consequence.

These take-up noises were to be completely eliminated and after much study and experimentation, an endless fabric belt together with a new belt-tension equalizing attachment, which automatically secured the proper tension and uniform take-up of the exposed film in the magazine, were adopted.

Figure 1 shows this arrangement and its adaptation to either a magazine having a capacity of 1000 or to one holding 400 feet.

The investigation conducted by the Bell & Howell Engineers, proved that the film magazines themselves were responsible for the transmitting and accentuating of noises or vibrations produced by the camera mechanism, the elimination of which was essential.

The drumming effect which was due to the shape and hollowness of the magazines, was eliminated by drilling their back and cover with numerous holes in spiral formation and by covering them with a one quarter of an inch thick layer of spongy rubber.

Figure 2 shows the position of the holes in the back of the magazine from which the felt lining has been removed and of those in the cover from which the rubber covering has also been removed.

The spiral formation has been adopted after conclusive experimentation proved that the vibrations of the camera mechanism were completely interrupted by these orifices so disposed, at the moment they reached the large surfaces of the magazine. These surfaces acted, previous to their alteration, in a manner similar to that of a vibrating diaphragm.

The magazines have also been equipped with especially designed rollers and hubs with oilless solid bearings which are made with painstaking care and accuracy and which are absolutely free from the noises previously inherent in these units.

To further insure the suppression and dampening of any residual noises, the interior of the camera and the shutter blades have been lined with a sound absorbing felt.

Figure 3 shows two views of the camera, one with the lens turret and front plate removed, showing the main formica gear and shutter and the other with the camera door open to show the intermittent movement and the felt linings in the camera door.

Improvements brought about in this movement, consisted mainly in the substitution of formica for steel gears, in the setting of the film tension at from 1½ to 2 ounces, and in the elimination of four out of six driving fingers eliminating the noise formerly produced by the pawls clearing the film perforations as they passed back for a new hold on the film.

Figure 4 shows at "A" the film gate open, and at "B" the closed mechanism with cap removed, disclosing the formica gear and the anti-reverse locking spring.

Through these alterations it has been possible for the Engineers of the Bell & Howell Company, to contribute to the advance of sound and talking pictures by evolving a camera suitable for work on the sound stage and which has proven, through actual demonstrations conducted in the course of production, that it can be safely set and operated. without the protection of a booth, as close as from eight to ten feet from the microphone without any of its noises resulting detrimental to the recording of sound and voice.

(Continued on Page 20)

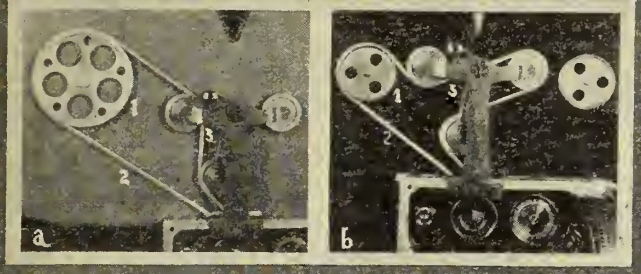


FIG. 1—BELT TENSION EQUALIZING ATTACHMENT
(a) Attachment adapted to a 1000' Magazine; (b) Attachment adapted to a 400' Magazine; (1) Magazine Take-up Pulleys; (2) Fabric Endless Belt; (3) Belt Tension Equalizing Spring.

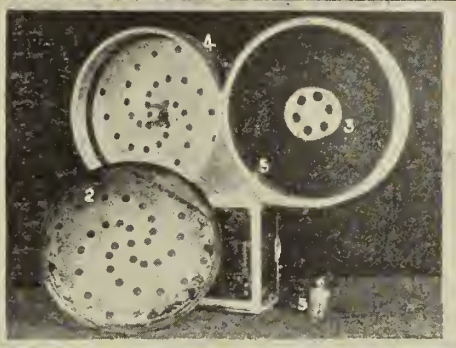


FIG. 2—1000' SILENCED FILM MAGAZINE
(1) Holes Drilled in Back of Magazine from which Lining has been removed; (2) Mazagine Cover from which Rubber Covering has been removed; (3) 3-inch Spool; (4) Outer Rubber Covering; (5) Film Roller; (6) Oil-less Bearing of Film Roller.



FIG. 3—CAMERA EQUIPPED FOR SOUND WORK WITH TURRET AND FRONT PLATE REMOVED AND SHOWING HIGH SPEED MOVEMENT IN POSITION
(1) Felt Lining on Camera Door and Shutter Blades; (2) Formica Gear; (3) Check Pawl Super-Speed Mechanism; (4) Fabric Endless Belt; (5) Belt Tension Equalizing Attachment.

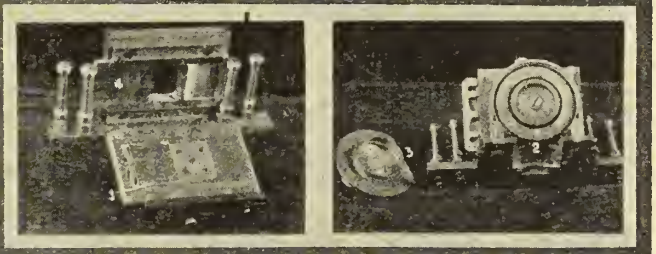
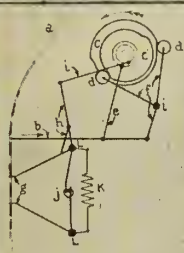


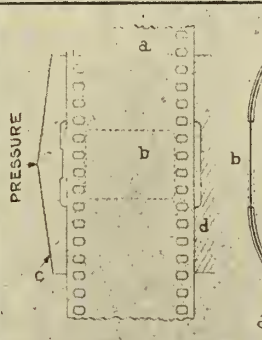
FIG. 4—SILENCED CHECK PAWL SUPER-SPEED MECHANISM
(1) Film Feeding Finger; (2) Formica Gear; (3) Anti-Reverse Locking Spring; (4) Relieved Aperture Plate.



a FILM CHANNEL
b FILM FEEDING FINGERS
C IN & OUT CONTROLLING CAMS
d CAMS ROLLERS
e FEED FINGERS CONNECTING ROD
f IN & OUT CONTROLLING LEVERS
g REGISTRATION FINGERS
h " OPERATING LEVER
i LEVER CONNECTING ROD
J ROLLER & SPRING CONNECTION
K REGISTRATION FINGERS SPRING
L PIVOTING POINTS

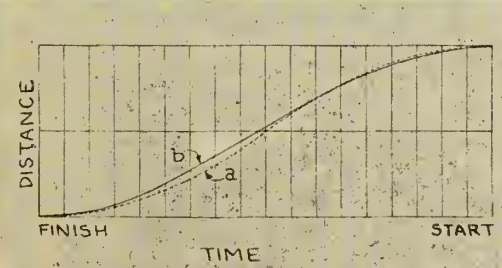
SCHEMATIC DRAWING

HIGH-SPEED SILENT, INTERMITTENT MOVEMENT MECHANISM

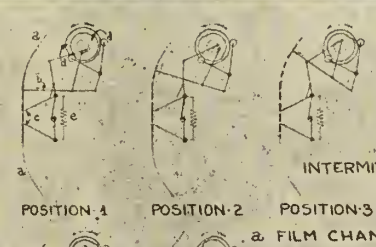


a FILM
b FILM APERTURE
C FLOATING TENSION PLATE
d FIXED TENSION PLATE

FILM TENSION IN SILENT HIGH-SPEED INTERMITTENT MOVEMENT FILM MECHANISM

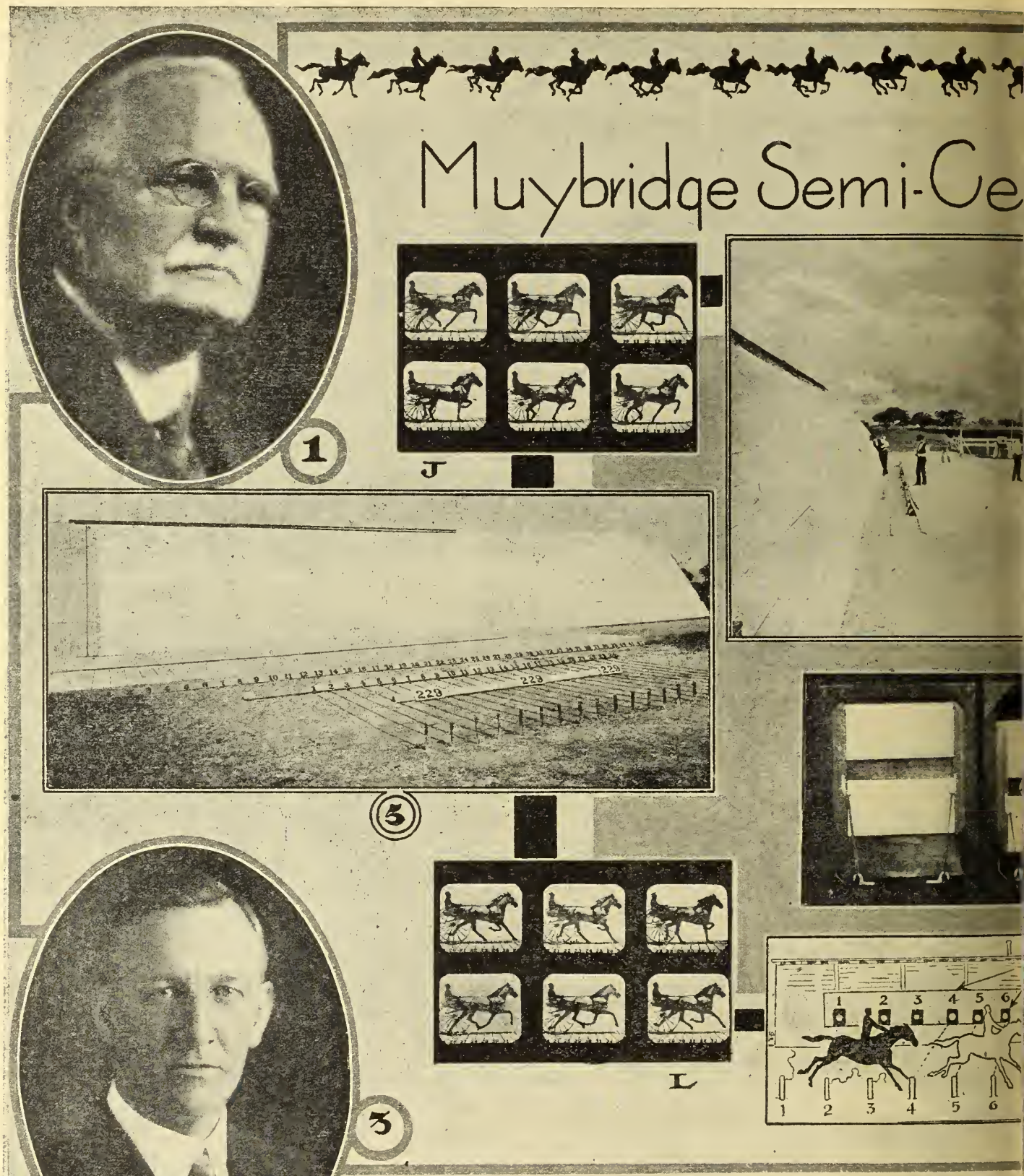


a. ACCELERATION BY A CONSTANT FORCE (GRAVITY)
b " " OBTAINED BY THE MOVEMENT

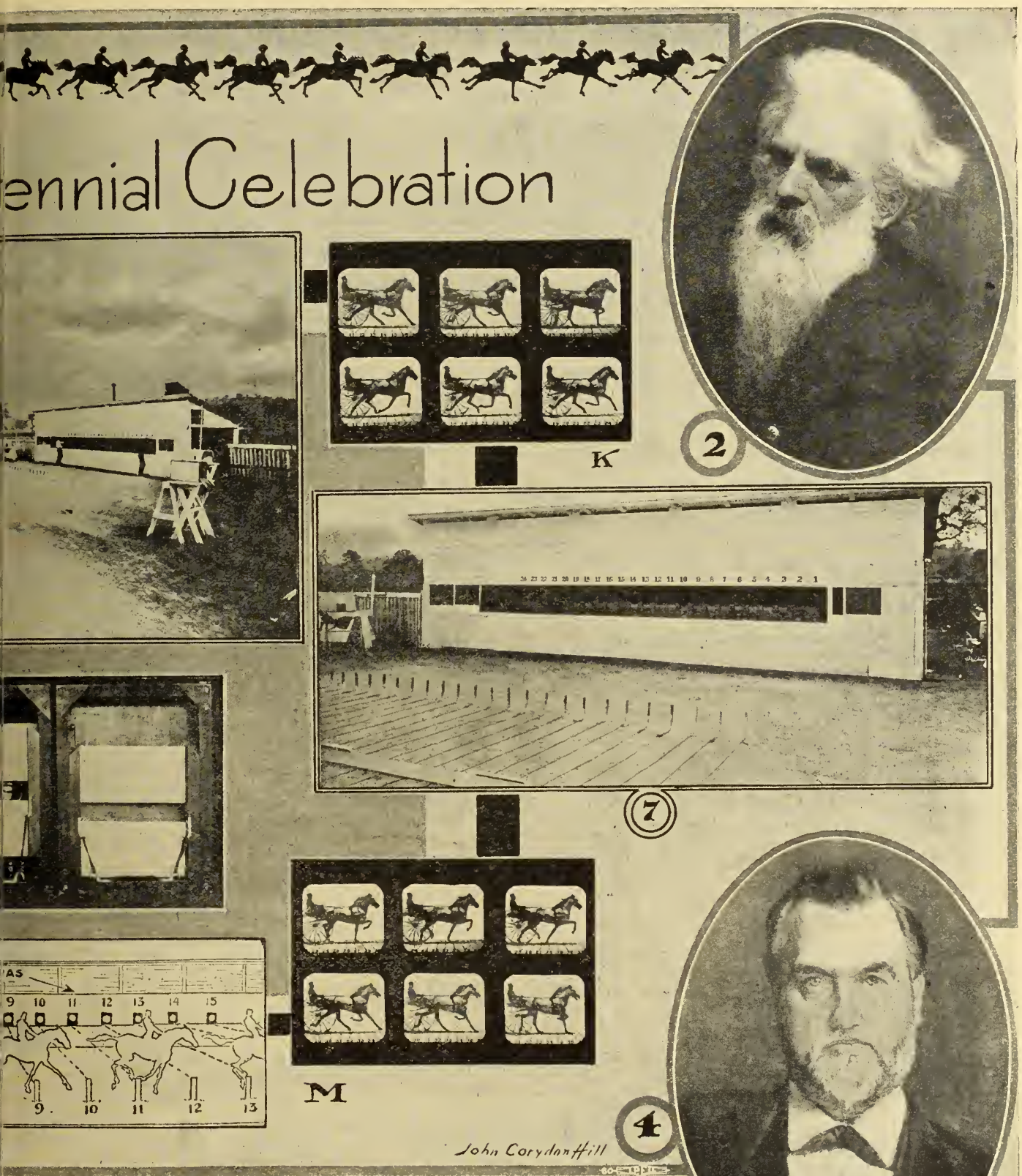


SCHEMATIC DRAWINGS OF PROGRESSION OF MOVEMENTS OF THE SILENT HIGH-SPEED INTERMITTENT MOVEMENT MECHANISM

a FILM CHANNEL
b FILM FEEDING FINGERS
C REGISTRATION FINGERS
d IN & OUT CONTROLLING CAMS
e REGISTRATION FINGERS SPRING



(1) John D. Isaacs, mechanical engineer, who devised the electrical equipment used to set off the twenty-four cameras shown in Fig. 7; (2) Eadweard Muybridge, in complete charge of the now famous epoch-making Muybridge experiments at Palo Alto, California; (3) Professor Walter R. Miles, director of the Psychological Laboratory at Stanford University, specialist in the photograp of the moving eye; (4) Leland Stanford, foun of Stanford University and sponsor of the Mu bridge experiments; (5) Showing part of the perimental set and reflector used in the Muybri tests; (6) View of the entire set showing m stringing the threads from the reflector across



nning field to connect with the cameras; Fig.) illustrates the method of releasing the camera utters; (7) The right side of the experimental showing the twenty-four cameras lined up for e shots; (8) Closeup of three of the cameras il- trating the "before, during and after" of the ot and the method of holding up and releasing the focal planes by means of elastics; each camera was equipped with a double-focal plane for speed, one aperature moving up and the other moving down; J. K. L. M. 24 shots of a trotting horse, the contact being made by the steel tire of the sulky running in a steel channel; in this case the shutters were released by the steel tire making intermittent contact with the ground wires shown in Fig. 5.

Muybridge Semi-Centennial

BY

WALTER R. MILES
Professor of Experimental Psychology, Stanford University

IF Leland Stanford had not been so sure he was right about the way a horse moves his legs, the motion pictures might have been a good many years later in arriving.

That conviction on the part of the founder of Stanford University plus the skill of a pioneer photographer resulted in the first series of consecutive instantaneous pictures made fifty years ago on Stanford's stock farm at Palo Alto.

Considering the state of photography at the time the achievement was remarkable. Although the Swedish chemist Scheels disclosed the action of the sun's rays on chloride of silver in 1772, a hundred years later Stanford and the photographer Eadweard J. Muybridge who worked with him had to dip their plates every few minutes. It was not until 1882 that they had usable dry plates. In contrast with the plates used, the camera itself was well developed. Many of the Stanford - Muybridge experiments were made with f:4.0 lenses.

To place credit where it is due and trace the history of the beginnings which have developed into the motion picture industry of today Walter R. Miles, professor of Experimental Psychology at Stanford University recently made a thorough research. Parts of this were incorporated in two lectures delivered at the recent ceremony sponsored jointly by Stanford University and the Academy of Motion Picture Arts and Sciences to commemorate the semi-centennial of the Stanford experiments. Material in this article is used through the courtesy of Professor Miles and the Academy.—Note by Don Gledhill, of the Academy of M. P. Arts and Sciences.

For us today to photograph a strip of motion pictures is about as easy as to scratch a match. For those of yesterday to make a photograph of any kind was worth a days work. If you wanted to take a picture of a cow in a pasture field you practically had to go out as a camping expedition,—you had to take a tent and a bath tub—the tent for a dark room and the tub to dip your plates freshly in the silver solution. The wet collodion process was a rather messy affair. The plates had to be dipped just before they were exposed and in those cases where the photographer desired to take still pictures of animals or of children, he sometimes had to dip his plates more than once due to the delay between dipping and getting a still period for exposure. Landscapes and human adults lent themselves readily to photographic requirements. Daguerre first made photography a commercial success and shops were opened in London about 1840. Most excellent photographs were made by O. D. Hill in London in 1845. Among these were portraits of Browning, Tennyson and Darwin. Fox Talbot's view of Laycock Abbey was produced in 1839 or at least it was shown to the Royal Society that year, though he started his experiment in 1834, and this is thought to have ben the first landscape photograph. Very naturally in dealing with the landscape and particularly with human portraiture the problem of exposure time had to be considered. These early photographers were asking each other the question and experimenting as to how short the exposure can be? How can it be made shorter and suitable to record the rapidly changing scene? Notice please that man's perception of space and form relations is much more exact and minute than is his appreciation of time intervals. The retina is spread out, a broad expanse of minute recepters and can thus register simultaneously straight lines, curved lines and almost an infinite number of points. The Babylonians divided the special circle into 1,269,-000 parts, that is, 360 times 60 minutes, times 60 seconds. We have no comparable division of time into such tiny units that are, or can be, consciously appreciated. Man has not the developed nervous mechanism for apprehending time that he has for apprehending space. It is natural that we give first and foremost attention to the space relations and only later turn to the time relations. This, I think, is characteristic in every branch of science and in every major human activity. Instantaneous photography like most things did not have an instantaneous beginning. I will cite one historical item which seems to me of interest on the topic. In August 1851 the following note was published in the Philosophy Magazine, p. 154. Note on instantaneous photographic images, by H. F. Talbot, Esq., F.R.S. etc. "Having recently met with a photographic process of great sensibility, I was desirous of trying whether it was possible to obtain a truly instantaneous representation of an object in motion. The experiment was conducted in the following manner. A printed paper was fixed to a circular disc, which was then made to revolve on its axis as rapidly as possible. When it had attained its greatest velocity, an electric battery, kindly placed at my disposal by Mr. Faraday, was discharged in front of the disc, lighting it up with a momentary flash. A camera containing a very sensitive plate of glass had been placed in a suitable position, and on opening this after the discharge an image was found of a portion of the words printed on the paper. They were perfectly well-defined and wholly unaffected by the motion of the disc. As I am not aware that this experiment has ever succeeded, or indeed been tried, previously, I have thought it encumbent on me to lay an early account of it before the Royal Society." June 12, 1851, W. H. Fox Talbot took out a British patent for making instantaneous pictures of moving objects by the light of an electric battery.

Thus the notion of an extremely brief exposure as a technical possibility was squarely before the scientific world in 1851. As a practical matter, however, the photographers of the sixties and seventies found that with ordinary daylight the exposure could be as short as 1-10 or 1-12 second. This was the status when Mr. Eadweard Muybridge, a photographer born in England in 1830, was working in San Francisco in 1872.

Today the cameraman speaks of "shooting a scene." The camera operator whose object has been to deal with motion has always occupied this role of the marksman. He had to train himself to pull the trigger when everything was in line. This is not so easy if you are trying to line up with a winning race horse. The first attempts by Mr. Muybridge in Sacramento were made with a single camera and he pulled the trigger when his eye said "now" to his hand. He had a double technical problem. The first to get the horse on the plate, second, to get him in that phase of leg and foot position which Leland Stanford knew about and wanted to have registered. Their results, like most research findings, only whetted their interest to pursue the problem further.

Governor Stanford changed his residence from Sacramento to Palo Alto Farm in 1876. The next year he was ready and interested in having further trials made. They secured a picture of Occident representing him with all feet clear of the ground. This picture was enlarged and retouched and widely distributed. Mr. Muybridge was authorized to procure further apparatus and to arrange a building near the practice track. The building was to house the cameras arranged in a line, and was to provide the requisite "tent" and "bath tub." Preparations were completed in 1878 when they had twelve cameras in place, arranged at intervals of twenty-one inches and fitted with double shutters. We might describe

the shutter as of double focalplane type. One opening was above the lens and the other below. Each shutter was pulled by stout rubber bands and when the latch was sprung the shutters moved in opposite directions so that the openings passed each other at the level of the lens. The duration of the exposure according to the strength of the rubber band used was anywhere from 1-1000 to 1-5000 second.

The first latches used in the Palo Alto camera battery were somewhat like door latches and each had its latch string out. The two parts of the shutter were set. The latch held them; pulling the string sprung them; they uncovered the lens and then closed again, but all in all, they were not very certain in their action. They were uneven in tension or pull required to set them off. At this stage in the work, Governor Stanford secured the young mechanical engineer, John D. Isaacs, to assist in refining the apapratus so that it might be more certain in its action. He applied the principle of the electromagnet and arranged a form of electric trip. Now, in order to make an exposure, it was only necessary to close an electric circuit. There were three chief means employed for doing this. First, the threads. Fine threads had been stretched across the track, one for each camera, and the horse running against these had pulled them in turn and thus had shot himself with each camera at the moment when he was directly in front of it. Threads continued to be used with the electric shutters, but now the pull on the thread required to close the circuit was not so uneven as previously and did not have to be as great. Of course the threads were always broken and had to be strung up again for each new exposure. Second, the vehicle switch. When the horse drew a vehicle it was possible to make use of the steel tire on one wheel, by having this wheel run in a grove so that the tire could make contact in turn with wires representing the successive camera circuits. A large number of very successful pictures were taken by this means. Third, the clock circuit breaker. A weight operated clock with a fan form spread control rotated a roller somewhat like the old fashioned music box. The pins in this roller made contacts successively with the different camera circuits. If one accurately judged the rate at which the horse would pass the cameras and adjusted the clock to that rate, he could record the animasl consecutive positions without having the animals in any way operate the mechanism. Quite a number of the Palo Alto records were made by this form of technique.

"On the site of the track, opposite the building where the cameras were placed, and in such position as to receive the best exposure to light, a wooden frame was erected, about fifty feet long and fifteen high, at a suitable angle, and covered with white cotton sheeting divided by vertical lines into spaces of twenty-one inches, each space being consecutively numbered. Eighteen inches in front of this background was placed a base-board twelve inches high, and on which were drawn longitudinal lines four inches apart."

One important possibility opened up by the electric shutters was that of setting off several cameras at the same instant. For this work Muybridge usually employed five cameras. The central one of his battery from which a thread came to the opposite side of the track and four others set in a deep semi-circle so that each would get a wholly different view of the animal that set off this quinquepartite photographic trap. Such groups of photographs were a very important means for what we might call an all-round study of a moment of motion.

The reel is not ended; much as we have seen by way of development since the days when the Stanford horses Occident, Sunol, Wildflower and Electioneer sped past the cameras of Muybridge, we now waken to the thrilling fact that the show has just begun. Every time-frame that flashes on the screen of consciousness brings us new wonders in ways and means of portraying life, motion and personality. Let us remember the story from its beginning! The name of Leland Stanford as the first to conceive and to bring to pass in an important way the recording of action through photography and the name of Eadweard Muybridge as his technical associate as significantly and permanently engraved in the historical record of motion picture progress.

Don Gledhill, of the Academy of Motion Picture Arts and Sciences, supplies the following notes in connection with the Stanford-Muybridge article:

The correct spelling is Eadweard J. Muybridge.

The Palo Alto studios were conceived by Stanford to verify some of his own opinions about the motion of horses. He was a noted race horse breeder in addition to being Senator, Governor, Southern Pacific builder and university founder. The studios were built by Muybridge and used in 1878 and 1879.

After Stanford had taken his first album of 2000 pictures to Europe his reception there was enthusiastic that he sent Muybridge over in 1882. When Muybridge returned J. B. Lippincot the publisher financed a 120 foot studio at the University of Pennsylvania for him. Here Muybridge made 781 plates. For many he used cameras at three angles, to show the object from three sides simultaneously.

The plates used in the Muybridge experiments were very small, three by four inches.

The great value of Muybridge's experiments was that he was first to produce in continuity images of objects in motion which were capable of analysis and syntheses.

JOHN DOVE ISAACS

By Ira Hoke

In an obscure corner of a Los Angeles daily newspaper there appeared on April 27th last, a terse news item, unnoticed and un-remarked. Yet, to the people who live by make-believe in moviedom today, this bit of news might well have deserved double headlines on the front page.

San Francisco, Apr. 27.—John Dove Isaacs, 80 last to survive of the four men who took the first motion pictures, is dead at his home here.

Last of the four pioneer producers of the first motion picture. Last of the four pioneers of the fourth largest industry of the United States. Yes, John Dove Isaacs deserved a headline in the daily papers of Los Angeles.

It was in the year 1872, in that season when the thoughts of sporting men turn to the turf and the thunder of plopping hoofs, that a hot dispute arose among several wealthy horse owners on the race track at Sacramento. None of the owners concerned were really certain that a running horse's hoofs were ever all four off the ground at any one time.

Eadweard Muybridge, an English photographer in the employ of the United States Geodetic Survey, was called in at the suggestion of Governor Leland Stanford, to settle the controversy by photography if possible.

Muybridge, together with J. D. B. Stillman, and John Dove Isaacs, arranged 24 collodion plate cameras side by side along the race track. From the shutter of each camera a thread was stretched across the track. Each thread was just strong enough to trip the shutter before breaking. At a given signal a horse was golloped down the race track in front of the cameras. As it dashed along it broke the cords in rapid succession and thus took a series of photographs of itself and rider in various positions of action.

After many experiments success crowned the undertaking. Twenty-four pictures showing the successive steps taken by the horse constituted the world's first movie.

Governor Leland Stanford, Muybridge, Stillman, and Isaacs, formed the first motion picture production company. Edward Muybridge became the first cameraman.

Then came the dream that dominated the remainder of the life of Eadweard Muybridge; to re-construct a picture of a scene in motion. Today the projection of a picture is a comparatively commonplace event, but Muybridge, hampered by the limited photographic apparatus of the period, had no means of viewing his pictures with sufficient rapidity to simulate the original action.

But the dream was there, the dream of motion reconstructed. Through the years engineers all over the world have contributed ideas toward the perfection of this dream until, today, it stands as a monument to the memory of Eadweard Muybridge, father of all movie cameramen, and the man whose dreams have made possible an instrument that carries the light and fame of Hollywood across the seven seas.

Silencing the Bell & Howell

(Continued from Page 14)

The intermittent mechanism of a motion pictures camera is, so to speak, the heart of the whole instrument, since upon it depends the precise registering of the rapidly succeeding photographic records.

The intermittance of movement has from the very beginning of motion pictures, put to task the inventive gen us of motion pictures Engineers, in order to solve the problems involved in the designing of a mechanism which would, while working at a speed of 16 pictures per second, perform a cycle of four main and distinct movements.

I.—The engaging of the film-feeding fingers into the film perforation.

II.—A downward movement of the fingers to bring an unexposed portion of the film in the proper position in front of the camera aperture.

III.—A backward movement to withdraw the fingers from the film perforations.

IV.—An upward movement of the fingers to bring them in position to reengage into the film perforation and repeat the cycle.

Dur'ng this cycle of movements, the shutter of the camera was to make one complete revolution.

The mechanical problems inherent to this rather complex cycle of movements, had been happily solved with a reasonable disregard of the noises resulting from the functioning of its parts all attention being paid to the accuracy of registration and the elimination of any possibility of damaging the surface or the perforations of the film.

The advent of sound Motion pictures demanded a mechanism capable of noiselessly completing at least 24 cycles per second and also capable of withstanding a much more strenuous usage than the movements in existence, due to the fact that the average length of scenes taken for sound purposes is at least four to six times greater than the average length of scenes photographed for the silent drama.

The main prerequisites of such mechanism are the absence of noise and the ability of performing at a minimum speed of 24 pictures per second (90 feet per minute) while conserving intact the indispensible attributes of perfect registration, forward and backward movement and an as complete as possible elimination of friction upon the surfaces of the film, in order to avoid the evils of scratches and abrasions.

In order to simplify its description, we shall consider one after another its principal parts, namely:

The Film Channel
The Film-feeding fingers
The Registration fingers

and conclude with a brief description of features of general interest, such as the lubricating system and the general assembly of the mechanism.

THE FILM CHANNEL:—The film channel can be divided into three main sections, an upper and a lower curved section each having a radius of 1¼ inch and a central plane section.

Figure 5 shows a schematic drawing of the mechanism plainly illustrating the above mentioned essentials, Film channel, Film-feeding fingers and registration fingers.

The film-feeding fingers operate in the upper curved section, while the plane section comprises the camera aperture and the location of the registration fingers.

The central plane section of the film channel has been kept within the shortest possible length in order to insure perfect flatness of the film surface at the time of exposure.

The longitudinal curves impressed upon the film by the curved sections of the channel, in conjunction with the transverse guide and tension plates, prevent any possibility of the film sagging or curling even under very severe temperature conditions. The film is thus kept under control throughout its path in the channel and the presentation of a perfectly flat film surface at the focal plane of the photographic lens is thus assured.

The Film channel consists of two members. The film is inserted in the space thus provided for and which is so designed as to provide a frictionless surface passage of the film through it.

A light spring pressure of the aperture plate against the body of the movement prevents possible injury to the film or to the mechanism, should the film be threaded improperly.

The aperture plate, is provided with a lock and the film cannot be introduced into the channel if the lock is not in its engaged position. This arrangement eliminates all possibilities of neglecting to lock the aperture when the mechanism is replaced in the camera after having been withdrawn from it for the purpose of cleaning even if this operation is performed under the greatest possible pressure of urgency.

A very light tension at one side of the film keeps it registered sidewise against a solid rail.

Figure 6 shows the arrangement of such tension which is exerted only on the portions of the film which assume the curved shape of the film channel.

The point on the floating tension plate at which the pressure is applied was determnied by careful calculation, and is so located as to assure an equally distributed pressure along the entire side tension-producing surfaces.

THE FILM-FEEDING FINGERS:—The function of the film-feeding fingers, is to engage in the perforations, carry the film downward or upward, according if it is desired to record the motion of the subject normally or reversed, to withdraw from the perforations and resume its original position as at the beginning of the stroke.

The ideal IN and OUT movement of the film-feeding fingers would be the one in which the motion occurs at a time when there is no contact between the fingers and the faces of the perforations since the inevitable wear which occurs at the end of the fingers, is caused by the rubbing of the surfaces which contact with the faces of the perforation.

In the new mechanism here presented, the entire feed forward movement of the fingers has been held to only .012 inch and only 1-6 of this total displacement, or .002 inch, is the extremely short motion which takes place from the time at which the fingers begin to engage in the perforations, until the entire IN movement is completed.

The ideal movement, is the one in which the total shutter covering time and the film advancing time are equal with the acceleration produced by a constant force.

In Figure 7 curve "A" represents the acceleration due to a constant force, that is to say, GRAVITY. Curve "B" is plotted from the downward movement of the film.

It will be noticed that during a complete from top to bottom stroke, the acceleration and deceleration of the feeding fingers lie very close to the ideal. The variation is very slightly greater in the deceleration.

It is because the ideal acceleration condition is so closely met that the time necessary for the IN and OUT movement of the feeding fingers has been reduced to the smallest extent.

The amount of noise produced in intermittent movements by the rapping of the film-feeding fingers against a stationary film, is determined by the amount of "play" between finger and perforation.

In the movement here presented, the film-feeding fingers are .088 inch narrower than the film perforation which condition limits the overthrow to .004 inch, that is to say, the film-feeding fingers move along a path only .004 inch long before touching the faces of the perforation.

The extent of displacement is so small that the downward movement of the fingers is extremely slow at this moment, so that they may practically be considered as stationary at the instant in which they actually come into contact with the film perforation.

To insure a still greater resistance to wear, the ends of the film-feeding fingers are chromium plated.

In Figure 8 are shown five schematic drawings of the mechanism, at five different phases of movement.

It is well to remark that the schematic condition of the drawings does not permit to illustrate the extremely small overthrow previously referred to.

In position 1, the film-feeding fingers are withdrawn from the perforations and the registration fingers are holding the film stationary by spring pressure.

In position 2, the film-feeding fingers are shown during their upward motion. The film is still held in position by the registration fingers and remains so while the shutter (not shown in the drawing) is functioning in the exposure condition.

In position 3, the film feeding fingers have reached the end of their upward stroke and are advancing into the perforations. The registration fingers are still engaged.

In position 4, the film feeding fingers have moved forward slightly and the registration fingers are withdrawing. This phase of the movement is difficult to illustrate in proper proportions since it involves the simultaneous motion of feeding and registration fingers which covers distances but a few thousandths of an inch long.

In position 5, the film feeding fingers are carrying the film downard and the registration fingers are in their retracted position.

The IN and OUT movement of the fingers is accomplished by means of two adjoining cams which are integral parts of the crank shaft. These cams provide positive forward and backward movement to the fingers and eliminate the use of springs.

No damage can possibly result from undue friction or strain upon the film perforations.

The motion producing surfaces of each cam subtend an angle of 12 degrees which is but 1-30 of its periphery. There is no load upon the inactive parts of the cams.

The cam's rollers are freely fitted in their sockets; they creep around very slowly while in contact with the active zone of the cam and each point of their surface incurs an equal amount of wear. They can easily be removed and replaced in their sockets without the use of tools, should the inevitable wear produce any loose motion.

The lubrication of the cams and rollers is assured by oil saturated felts which are in constant contact with the periphery of the cams.

The exposure condition is met by this new mechanism as in the usual 170 degree shutter cameras.

THE REGISTRATION FINGERS:—In order to insure the perfect registration of each photographic image on the film and to insure that there will be no motion in the film during the time of exposure, two pairs of registration fingers have been provided in this mechanism.

These fingers engage the perforations at the end of the film feeding stroke, become stationary when fully engaged and remain so until the beginning of the following stroke.

The manner in which these fingers sieze the film, is entirely new.

At the moment at which they have fully completed their forward movement, they become wedged against the faces of the film perforations by spring pressure. The film itself serves as a stop for the fingers, and the spring pressure locks both fingers and film, assuring absolute rigidity and perfect registration.

The registration fingers are also chromium plated in order to insure their longest possible life.

PIVOTS AND BEARINGS:—There are only three points in the mechanism where bearings are used.

The pivot bearings are adjustable and very generously calculated so that the perfect functioning of the movement is assured throughout its life.

LUBRICATION:—The cams and rollers are lubricated as previously explained by felt wicks and the same system is used for the constant lubrication of the other rapidly moving surfaces. Oil holes are provided for the proper lubrication of the other parts of the mechanism.

GENERALITIES:—The movement proper is built around a single piece of hardened steel.

All holes which are to receive pivots and bearings are bored after hardening, with tolerances of .0001 inch.

The movement is entirely enclosed in an aluminum cap which serves the threefold purpose of rendering the mechanism light-proof, of preventing the spattering of the lubricating material within the camera and on the film when the movement is working at full speed, and as a protection against dirt from outside sources.

Provisions have been made for the mounting of a total reflection prism in the aluminum cap of the mechanism, so that a direct focusing magnifying optical system can be mounted on the camera.

The installation of this new mechanism in the Bell & Howell camera is extremely simple and requires, as the old movement, only to be slipped in the proper position and fastened there by two clamps.

No alterations of the camera are necessary except for the main cam, in which a worm has to be mounted to drive the mechanism itself and for a hole to be bored in the inner frame of the camera in order to provide space for a gear which is driven by the worm.

The whole mechanism which, as it has been seen, is built upon very simple lines, is remarkably small in size and presents at the same time all the necessary requisites of remarkable sturdiness and endurance.

An extremely careful adjustment of all its parts insures a most perfect functioning as well as a total absence of the noises which are so detrimental to the making of sound and talking pictures.

ILLUSTRATIONS

Fig. 1 Belt-tension equalizing attachment for camera magazines.
Fig. 2 1000 foot Silenced Film Magazine.
Fig. 3 Two views of the B. & H. motion pictures camera equipped for sound work.
Fig. 4 Silenced B. & H. check pawl super speed intermittent mechanism.
Fig. 5 Schematic drawing of the new B. & H. high speed intermittent movement mechanism.
Fig. 6 Film tension in the new B. & H. high speed intermittent movement mechanism.
Fig. 7 Comparative curves of the acceleration by a constant force with the acceleration obtained through the movement.
Fig. 8 Schematic drawings illustrating different phases of the cycle of movements performed by the new B. & H. high speed intermittent movement mechanism.

Handling Sound Film

(Continued from Page 3)

which take place during projection. All of these faults cannot be blamed upon the operation of the equipment as heretofore has taken place.

We have noticed lately that sound prints which are synchronized with discs have been coming through with very poor photography, and upon looking into the matter find that incandescent lighting is being used on sound features in preference to arc lighting. In our opinion arc lighting is far superior to the incandescent lighting for sound pictures. Many theatres have suffered because of the poor photography and patrons do criticize a production severely when they cannot clearly see the object on the screen. Most theatres are equipped with the best possible equipment with which to illuminate the screen properly. It is impossible to shoot through film which is very dark and obtain good results.

We have advised and instructed every projectionist in our theatres to handle sound film with great care and, upon checking into this matter, we find that the sound prints last just as long as silent prints. There have been many discussions about the life of sound prints. We might say that the print "IN OLD ARIZONA," which opened at the Fox Criterion Theatre, is still in use and the reason of this was the proper handling of this film.

The projectors must be kept in good condition at all times and proper tension must be applied against the film at the aperture, keeping in mind that excessive tension is one of the many things which ruins film as the sprocket perforations will not stand excessive strain. Many theatres have been criticized severely because of buckling which causes an in-and-out-of-focus effect on the screen, and this suggests one of the things which, we believe, should be watched by the laboratories. It is that film should not be stretched tightly when placed upon the drying drum, as it has a tendency to stretch, and this has caused considerable buckling.

is no different from that involved with untinted film. The tints reside in the "raw" positive film as it is received at the studio laboratories.

ESSENTIAL RAYS GO THROUGH ALL TINTS

The reason tints have not previously been usable for sound picture prints has been that the color in the film stopped the necessary light from passing through the "sound track" on the edge of the film and from actuating the photo-electric cell which is the heart of a sound reproduction system.

The secret of the new tints is that each, whether it appears to have any blue-violet in it or not, and at whichever end of the spectrum it occurs, was compounded with enough of the essential color in it to transmit the rays necessary for sound reproduction, based on spectrophotometric measurements. Many months' laboratory work has been required to accomplish the mixing of tints which would appear one color on the screen and yet might actually contain a color diametrically opposite on the circle of the color chart. Further difficulties had to be overcome to assure that sound reproduction would be uniform throughout the whole scale of seventeen tints.

In the research leading up to the development of positive film tints that would not stop the light rays to which the photo-electric cell is sensitive, work was done by the Eastman Kodak Laboratories to make a film that was tinted except for the sound track along the edge, which was clear. Such a film was successfully produced; but, because it would make the film productions for which it was used more expensive, further efforts were made to perfect tints that could extend over the whole width of the film.

NEGLIGIBLE VOLUME CHANGE WHEN TINT CHANGES

The evenness with which the sixteen tints and the neutral tone let light through to the photo-electric cell is indicated by the fact that between a tint of maximum photo-electric density and a tint of minimum photo-electric density the change in the transmission of energy is equal to only three decibels (energy transmission units), which causes just a barely perceptible change in the loudness of the sound. Between any tints except the two at the extremes the volume change is even less.

The problem of the reasearch leading up to these tints was to attain such evenness of photo-electric density while at the same time covering practically the entire range of the visible spectrum with tints as they appear on the screen.

The fact that this was accomplished means that any succession of tints may be used by the motion picture producers in making up a reel, with each mood of the drama aided by a psychologically appropriate color, and yet that no change in sound volume will be noticed when the tint changes on the screen. Indeed, contrary to the case of the tints in use with the silent motion pictures, many of the new sound tints are so delicate that they will simply enhance the moods of the screen and aid the powers of reproductive imagination in observers without making a distinct impression on the consciousness. This is true except in the case of the tints designed to arouse the more violent emotions.

ARTISTIC FUNCTION CITED

The following conclusions have been prepared by the Eastman Kodak Research Laboratories concerning the artistic relation of tints to motion pictures. This report was made after an exhaustive study of the subject, including the collection and analysis of all the available data relative to the symbolism, language, and emotional values of color.

"It is certain that many of the emotional moods which the motion picture seeks to capture reside in colors rather than in gray tones. Although gray may deepen certain moods of the screen, the peaks of emotion are usually flattened off by it, an effect which is far from ideal. A wider range of both stimulation and depression seems possible through a systematic use of the effective values of different colors. The language of color as applied to the screen is still rudimentary, but the colors do have certain consistent emotional effects well established by psychological tests.

"It is the purpose of the new series of tinted positive films to bring to the aid of the motion picture all the serviceable associations of color tones, to be used where

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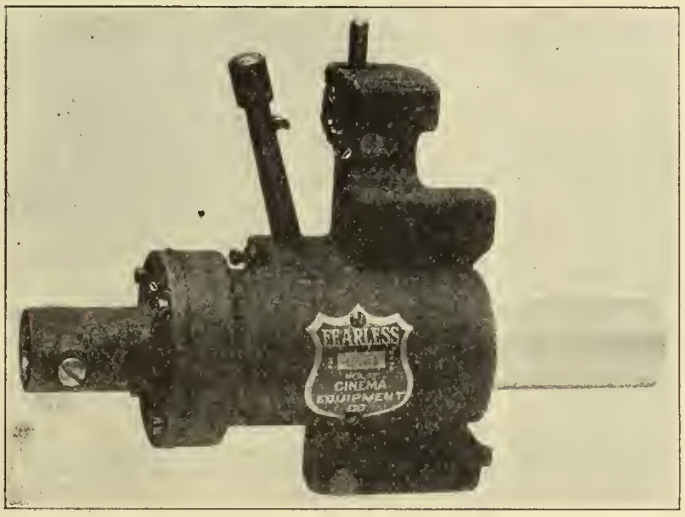
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Prevent damage to film from buckles.
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THEY

Save film at end of action by stopping camera when action is finished.
Absolutely prevent damage to camera from motor drive.
Are interchangeable from Mitchell to Bell and Howell cameras.
Are adaptable to R. C. A. or Western Electric sound installation.
Are the only safety clutch on the market.

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Standard equipment for sound at Paramount, United Artists, Pathe and Universal. Also used at First National, Metropolitan and Christie Studios.

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gray fails to support the dominant dramatic mood of the screen.

SIMULATE ACTUAL LIGHTING EFFECTS

"The films consist of Argent, a silvery hueless substitute for clear positive, and a series of sixteen chromatic tints spaced approximately equally along the gamut of visible colors and separated one from another by about eight just visible hue steps. In expressive hue values, the series thus provides a complete variety. The color saturation in most cases is relatively low, being adjusted with careful consideration of the psychological requirements so that the resultant color accompaniment operates with a maximum of effect without becoming obtrusive and distracting, whereby it would defeat its own purpose. A high saturation is used in a few of the tints which are designed to stir the more violent emotions.

"One of the principal merits of the tints is that in hue and saturation they can closely simulate the actual lighting of any exterior or interior scene. Lighting of realistic color content is a primary emotional source to which the motion picture has never before had such free access. The motion picture must have a universal language, and many of the universal affective values of colors have their origin in the chromatic quality of the light which ordinarily illuminates real scenes. The many variants of sunlight, moonlight, lamplight, and firelight, are reproduceable with the new tints with surprising fidelity.

"When a single pervasive color is used on the screen the observer tends to relate it either directly to some light source or to the reflection from some large area of a single definite color which occupies a considerable part of the picture. These two effects comprise the chief realistic uses of these tints and are the easiest to employ. But these uses by no means exhaust the possibilities of the tints.

"Thus Verdante, a delicate green in the series, connotes by direct objective association young foliage, grass, gardens, vernal landscapes, and hence is particularly useful in the rendition of scenes containing these elements. It may, however, be used effectively on scenes objectively very different, for the suggestion of youth, freshness, hope, aspiration, and those moods closely linked in our consciousness with the springtime of life."

———o———

ACADEMY AWARDS

In the presence of 250 members of the Academy of Motion Picture Arts and Sciences, together with a distinguished guest list awards of merit for the year were made Thursday night, May 16, 1929. Janet Gaynor was presented by Douglas Fairbanks with a statuette signifying that she had received the Academy's first award of merit for her outstanding performance in "7th Heaven."

Winfield Sheehan, vice-president of Fox Films, acting for William Fox, received the award of merit for the most unique and artistic production of the year, "Sunrise."

Charles Rosher and Karl Struss were also awarded first honors as cameramen for their cinematographic work on "7th Heaven."

———o———

QUALITY

O. C. Harn, managing director of the Audit Bureau of Circulation recently made this statement before the Advertising Club of San Francisco:

"Do you buy space," he warned, "on gross circulation alone. There are many factors that should be studied by the advertiser who wishes to get the most for his money. The smaller circulation, in some cases, may be the better for your particular needs.

"Quality is the first to be considered. Buying quantity advertising is like buying coal at so much a ton without inquiring whether the coal is hard or soft or the extent of its heating value."

The International Advertiser is an example of quality in advertising, but quantity is also coming rapidly.

———o———

DOUBLE EXPOSURE

(Contributed by W. S. Emrick)

"But this portrait makes me look so much older," objected Mrs. Bjones.

"That's the beauty of it, Madame," replied the artist. "Ten years from now it will be an even better likeness of you than it is today."

* *

Woman—"I'm getting a divorce. Can't you change this picture so it will be a portrait of my next husband?"

Brother James Palmer, representative of the Industrial section of the Board of Executives of Local 659, has been appointed assistant to Business Representative Howard E. Hurd. Brother Palmer expects to find time from his multifarious duties to give serious attention to the organization of the industrial cameramen who are rapidly becoming an important element in the cinematographic world.

———o———

One of the movie actresses has had her husband's portrait embroidered on her stockings. That's a lot better than having it tattooed on her arm. She can throw the stockings away when she gets her divorce.

———o———

This is Our Ticket

FOR MAYOR—WM. G. BONELLI

For City Attorney—E. P. Werner.

For City Council:

First District—Charles H. Randall.

Fourth District—William Hughes.

Fifth District—S. De Vier Ely.

Eighth District—Evans Lewis.

Ninth District—Frank Belcher.

Eleventh District—L. R. Rice-Wray.

Twelfth District—Thomas W. Williams.

Fourteenth District—Chas. A. Holland.

Fifteenth District—A. E. Henning.

Judges—Municipal Court:

Division No. 7—Guy S. Bush.

Division No. 10—George W. McDill.

Board of Education:

George S. Grant.

Irene Smith.

Vote YES on Propositions 1, 2, 4 and 5.

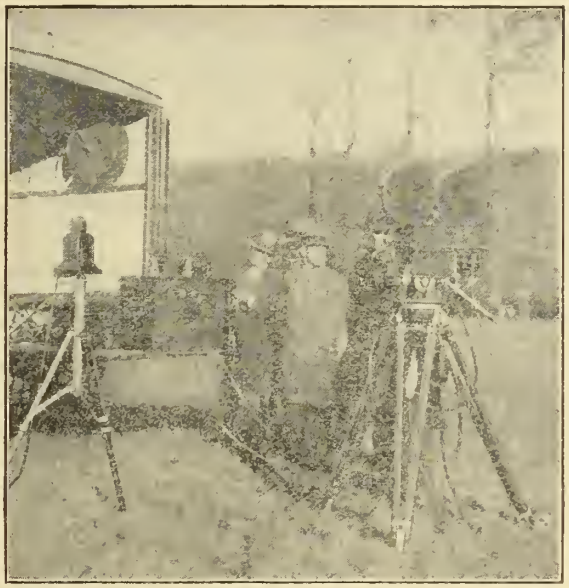
They have been investigated—found right—vote for them.

The Federated Voters of the Los Angeles Amusement Organizations have endorsed a ticket which they are recommending that their friends and members vote for in the forthcoming general election on June 4th.

The Federated Voters is composed of Motion Picture cameramen, Motion Picture Projectionists, Motion Picture Sound Technicians, Theatre Stage Employees, Motion Picture Studio Mechanics, Musicians Association, and other unions connected with the amusement organizations of Los Angeles. Embracing as it does many thousands of members, who, with their families are interested in the Federated Voters, they will present a striking unit of support for candidates whom they have endorsed.

It is not the purpose of the organization to advance the political interests of its members. The organization seeks only to elect men who will safeguard the safety rights and welfare of its membership and of the public. In speaking concerning the organization whose members have to do with theaters and amusement houses, motion picture studios, etc., in which the public as well as the employees are vitally concerned in safety measures, Mr. T. H. Eckerson of the Federated Voters said recently: "No one abreast of the times will deny that we have at the present time a sufficient number of laws and ordinances to regulate and maintain public safety and welfare. It is not so much additional laws that are needed as it is enforcement of existing laws. It is the purpose of the Federated Voters to unite with other organizations who seek unselfishly to elect to public offices men who will fulfill the pre-election promises made by them."

The organization is waging a vigorous campaign in behalf of the candidates endorsed by them. In the conduct of the campaign they will contact some 25,000 members. In addition to securing votes of their members and families of their members those endorsed by the Federated Voters will have the benefit of the active support and working strength of this vast number of citizens and their families. By advertising in the daily press, as well as through the active co-operation of this membership, the Federated Voters expect to lend material aid to the candidacy of those whom they have endorsed. On election day the Federated Voters will have their members with automobiles in the field to co-operate with and work in behalf of candidates endorsed by them.



This illustration shows the Akeley Gyro Tripod in actual use by the Western Electric Company, taking sound moving pictures.

Again AKELEY

. . . anticipated necessity
with a tripod ideal for Sound Pictures

"GIVE us the best camera tripod that human ingenuity can devise!" This was the demand of the sound cinematographers.

It was characteristic of the Akeley Company that its research laboratories had already anticipated this demand and were putting on the market such a tripod—a tripod quiet in operation, capable of great speed and flexibility, vibrationless but light, staunch yet easy to manage.

The Akeley Universal Gyro Tripod, containing the famous gyro mechanism, stands today a leader in this latest field of photography. This tripod is in constant use in many leading motion picture studios making Sound Pictures. These studios include Metro-Goldwyn-Mayer, Fox-Case Movietone, Pathe and Paramount. Other world wide corporations, such as Radio Corporation of America, Westinghouse Manufacturing Company, Western Electric Company and General Electric Company are enthusiastic users of the Akeley Gyro Tripod in their important work. We invite you to write for full description of this Tripod and details of our deferred payment plan.

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Whether it be talkies or silent

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For definite results

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ALFRED WEISS, *Pres.*

NEW YORK HOLLYWOOD

HOKE-UM

By IRA

Bargain News

Clerk (Showing Gordon MacLean golf stockings): "Wonderful value, sir. Worth double the money. Latest pattern, fast colors, won't shrink, and it's a good yarn."

Gordon MacLean: "Yes, and very well told, too."

Prohibition

"I hear they have gone dry in America where Michael Walsh lives," said the preacher to the deacon.

"Dry, is it," remarked the deacon. "They're parched. I've just had a letter from Michael, an' the postage stamp was stuck on with a pin."

Mathematics

Teacher—"If there were Mr. Terzo, Mrs. Terzo, and the baby, how many were there?"

Johnny—"There were two and one to carry."

Help!

Cameraman (severly)—"If this occurs again, Jimmy, I shall be compelled to call the Local for another assistant."

Jimmy—"I wish you would, boss, you've enough equipment here to keep two of us busy."

Recognition

"What did the boss do when you told him it was triplets?"

"He promoted me to the head of my department."

"What department are you in?"

"The Production Department."

Tough

Art Reeves: "Why don't you advertise?"

Storekeeper: "No, siree, I did once and it nearly ruined me."

Art Reeves: "How's that?"

Storekeeper: "Why, people came in and bought dern near all the stock I had."

Latitude

Junior Baker: "Our garage man's got a better radio set than ours, Dad."

Friend Baker: "What makes you think so, Son?"

Junior: "He said he knew he'd get Hell when he went home tonight."

FIRST MOTION CAMERA

When Muybridge exhibited his moving pictures at the Royal Institution in 1882 they were merely photographic curiosities. It was realized that an entirely new kind of negative was necessary if the photographic analysis of motion was to be successful. Eastman produced the celluloid roll film, but then no one had invented a camera for taking moving pictures.

It was William Friese-Greene, a native of Bristol, England, and a London photographer, who invented the first camera by which an unlimited series of intermittent photographs could be taken in rapid sequence upon a band of sensitized celluloid film. His original patent No. 10131, was granted on June 1, 1889, under the joint names of W. Friese-Greene and Mortimer Evans, an engineer who assisted in the construction of the apparatus. So little impressed was Evans with the value of the invention that he sold his share in the patent to Friese-Green for £200. Secure in his patent, Friese-Greene took his camera to Hyde Park Corner, and obtained moving pictures of the traffic which he printed on paper and displayed in his show window in Piccadilly.

CARDS LOST

Membership cards, lost, strayed or stolen, have been reported to headquarters as follows:

Loyal Griggs, No. 35615.

Perry Finnerman, No. 36396.

These cards are worthless to anyone except their rightful owners, and if stolen, will only lead to trouble for their spurious holders. If found they should be returned at once to this office.

OUR FIRST NEW YEAR

Billy Tuers, Dewey Wrigley, Jack Greenhalgh, with their assistants, Marcel Grand and Ed. Marvin, have just completed a two-reel picture for Pathe, Paul Powell directing. The boys worked the old year out and the new year in—May 19th to May 20th—the first new year of the International Photographers.

CARRYING THINGS TOO FAR

Leaving negative 20 minutes in a 10 minute soup.

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"THE UNSIGNED ARTICLE"
(A Tragedy in Two Acts)
By J. C.

Time—Present.
Place—A Studio.

CAST OF CHARACTERS

A DIRECTOR ..... *MR. T. EMPER*
THE PRODUCER ..... *MR. A. COATMAKER*
AN ACTRESS ..... *MISS MANY FIDGETS*
CAMERAMAN ..... *MR. BILL ONTHECHIN*
THE EXTRA CAMERAMAN
..... *MR. N. O. ASSISTANT*
SOUND MEN, ELECTRICIANS, PROPS, ETC.

ACT ONE

(In the Heat of a Sound Stage)

Director—All right, let's run through it, Miss Fidgets.

Cameraman—Hit 'em, Eddie.

Director—Ready Miss Fidgets?

Cameraman — Watch it, extra camera.

Ex. Camera—Yes, Bill.

Director—This is the take, let's go. Ready, Bill?

Cameraman—Are you all set, ex camera?

Ex Camera (Out in set trying to get focus)—Almost, Bill.

Director—Let's go, places. (Sound clutches in).

Ex Camera — (Trying to see if he has enough film). O. K., Bill.

Cameraman—Cameras are ready.

Director—Quiet, please.

Ex Camera — (In booth) (Miss Fidgets is living up to her name by doing a St. Vitus all over the set. Darn! Grunt! Gosh! Gee! Heck Dod Gast It!)

ACT TWO

(The Projection Room Next Day)
(Bill's Shot on Screen)

Director—Nice stuff, Bill. Good and sharp.

Producer—Not bad. Fair. (Ex Camera take on screen).

Director—This is terrible.

Producer—What's wrong with it?

Director—It is out of focus and the panning is jumpy, besides.

Cameraman—It must be the projector. Sharpen it up, operator.

Director—No, it's no better.

Producer—What seems to be the matter?

Director—We will have to retake that shot.

Producer—Can't you possibly do without it?

Director—No, it is a very important scene.

Producer—What was the matter, Ex Camera?

Ex Camera—I have no assistant and it was hard trying to follow focus and pan also.

Director—Well, where was your assistant?

Ex Cameraman—I have no assistant. The producers allow only the first and second cameramen assistants.

Producer—Yes, we have to keep down the cost; two is plenty.

Director—Shall we take that shot over tomorrow?

Producer—Yes, it will cost only $3,000.

(Curtain).



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Individual Service
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HOllywood 1944

"THE DAILY GRIND"
By RALPH B. STAUB



FRED KAIFER says his girl never goes to church but she certainly knows plenty of hims.

* *

EDGAR LYONS had a day off between pictures, so he bought himself a box lunch and went on a one-man picnic.

* *

JOHN SEITZ hopes some day to replace Gene Tunney. He knows three bigger words and more about Shakespeare.

* *

JIM VAN TREES says the kitchen in his new apartment is so small he has to use condensed milk.

* *

Went to lunch with JOE MORGAN the other day. We were both so hungry we could have eaten a zebra and enjoyed every stripe.

* *

REGGIE LYONS just returned from Hoboken. He says some of the folks are so old fashioned they are still voting for Bryan. Reggie says he hasn't got a chance.

* *

DOC TRAVIS says he has an assistant who is not afraid of work—he could lie down beside it and go to sleep.

* *

WALTER HAAS introduced me to a girl friend of his. He said she had several sweethearts before the war—must have meant the civil war.

* *

CHICK McGILL is so kind hearted he wouldn't even dip an animal cracker in hot coffee.

* *

J. O. TAYLOR is progressing greatly with Fox's two inch film. Joe's new slogan is "wider and better pictures."

* *

LYMAN BROENING says his new assistant has a face like a picture but his frame is too large.

Our eminent business agent Mr. HOWARD HURD tells a little story that happened last week:

Howard to waiter—"Say waiter this chicken is terrible."

Waiter—"Sorry sir, but it was in a fight."

Howard to waiter—"Well, take it back and bring me the winner."

* *

JACKSON ROSE says one can always tell when spring is here because the trees begin to bloom and Scotchmen start throwing away their Xmas trees.

* *

FRANK KESSON told me his cousin graduated from Yale with 103 degrees. I told him that was impossible, but Frank insists he worked up a fever the night before graduation.

* *

REGGIE LANNING says he loves California. He just bought a flowerpot and is going to have it sub-divided.

* *

JACK McKENZIE says Hollywood girls wear two pairs of garters. One to hold up their stockings and the other to hold up traffic.

* *

RAY RIES has just composed a new song dedicated to the traffic cops of Los Angeles entitled "Left—Clown—Left."

* *

Met M. HALL walking along Hollywood Blvd. at 3 in the morning. He looked like a one-man crime wave.

* *

CHARLES ROSHER cables me that he has met kings and queens but still thinks Hollywood aces.

* *

HENRY FREULICK took his girl to San Pedro to visit the battleship Saratoga. When she rolled her eyes and said: "Oh la la," the sailors were ready to go out and sink their own battleship.

* *

LEE GARMES just built a new apartment house. The rates are $50 and $60—with mousetraps $75.

* *

JOE McDONALD says his new girl is certainly gifted with beauty—she could tempt an iceman to go into business in Alaska.

With the Pioneers



This, the third of the thumbnail sketches "With the Pioneers," has to do with John W. Fuqua, favorably known to his associates as Jack. The picture was shot at Chicago, Ill., in 1915, when Jack was photographing the "Bunny Comedies." The camera is an Erneman.

EDGAR LYONS
NOW PHOTOGRAPHING
VITAPHONE PRODUCTIONS
WARNER BROS. STUDIO

WARNER NICHOLS CROSBY
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SANTA MONICA 51450

HARRY PERRY
AT · LIBERTY

After one year with "Wings" and twenty months with "Hell's Angels" as cameraman in charge of photography.

The two greatest aerial sound pictures in the history of the screen!

Phones OXford 1908, or HEmpstead 1128, or
Address Local 659, Markham Building, Hollywood, California.

WHO CAN ANSWER THESE?

Story Structure

1—Will the peculiar characteristics of the motion picture be sacrified to the new talking picture script? We look upon these features of the motion pictures as something apart from the stage.

2—Will the talking picture story develop a tendency towards a mere imitation of the stage?

3—Will there develop the same tendencies among the clever dialogue writers, as among some of the title writers, to overwork their opportunities?

4—What will be the chances for originals. Will the new art also depend upon the publishers and the stage as a guide in the choice of stories; or will the day come, when the screen will attain such **position** that the situation may be reversed.

5—Is there at present a tendency to exagerate the "so de voce" in dialogue recording.

General Application of the Sound Technique

1—Will the charm of variety in settings and rapid change of locales be distroyed by the more direct method of story telling by dialogue?

2—There seems to be a general resentment towards the introduction of the new and important position of the sound expert. Is not this more an apprehension than a reality.

3—Is there any reason to fear that the director and the author will be trammeled by the demands of the sound expert, or will it merely mean that they will have to familiarize themselves with another department of the art.

4—Is there a danger of the directors overlooking some of the subtleties of the art in their anxiety to secure the sound effects.

5—Is there any real reason why photographic effects must be sacrificed to the sound requirements.

6—Can there be a proper illusion between the sound and the picture if an even sound level is maintained, regardless of the various set ups, or should there be perspective in the sound reproduction as well as in the picture. (Example): An extreme long shot carrying the same volume of sound as the extreme close up.

7—After all: Will not the new system develop the individual genius just as in the silent pictures, who will overcome all the difficulties and develop the perfect technique for the talkies?

CAMERA ART

(By Gunther Rittau, of the Ufa Company.)

The film in its best productions has established its claim to be a new pliable medium of artistic expression. But the path to the perfecting of this new visionary art is long. The celluloid strip was seized to create the first "wonderful, living pictures"—for the fair-booths. The public was fascinated. The cinema arose and enticed millions to its shimmering canvas. Then there emerged the task of moulding the camera and the film into a new means of delineating art.

And all who are engaged in this task are apprentices of the new "camera-art"—for there is no master. We appeal to the eye by a transient sequence of optical impressions, as the musician appeals to the ear by an acoustic sequence of sounds. The lens is our etching needle. We turn backwards and sweep along the avenues of time; we observe humanity in all its moods—and discover a new physiognomy. We turn slowly, and the flowers bloom. We turn quickly, and there is revealed to us the secret of the bird's flight. We let the camera swing through space, and observe its dynamics. We create giants and dwarfs, legendary forests, dragons, and knights errant. We lead man over the whole earth and point out to him the grandeur of Nature; and we conduct him through the secret, tiny places of the microscope.

We have learned to love our camera; and every day we discover something new and fashion ever richer our scale of expression. Its simple, optical speech has perhaps already become expressive—like all the other arts. From the plaything of the fair-booths there has been fashioned a weapon of culture, and from this fact arises the duty of the creative film artist not to profane the rich art of the camera, but to use it in the service of true culture and international ethics.

THAT GOLF BRAWL

Reggie Lanning, promoter in chief of the big International Photographer Golf Tournament, announces Labor Day as the tentative date. The event is set so far ahead not only to do honor to Labor Day, but because of the exegencies of the handicapping rules.

To be eligible to play contestants must be able to turn into the handicap committee not less than five cards on eighteen (18) hole golf courses.

The purpose of the promoters is to make this the gala event of all events in cinematographic history. It will be an all day session with prizes galore, many of beauty and value; a buffet luncheon or picnic feast, as you please, and with music and dancing on the side.

Handicaps and full details will be announced in the July issue of **The International Photographer.**

SOUND WITH COILS

Earl Miller at Paramount, who is the "Papa" of whistle boxes or choke coils, says they are cool but still hot—very much in demand—and going over big—using more of 'em every day. Speaking of whistle boxes, ask Old Man Whistler at Pathe.

Bill Johnson RKO. He likes his chokes and is one of the very best manufacturers of choke coils in the "Racket." Says he: They may burn up but they certainly do the stuff.

Slim Roe and Pete Harrod are keeping their secret in the sack, but you better watch those two tall, slim, heavy boys—'cause they're clicking all the time.

ABROAD

British Photophone, Limited, have adopted the sound-on-disc system.

The first missionary film was shot 25 years ago—a picture of missionary work in India.

Fifteen studios are now producing in England.

English studios need cameramen badly, but they want Englishmen only if they can find enough. They also need make-up artists.

EASTMAN, DUPONT, AGFA—STRAIGHT OR PANCHROMATIC 35 MM. ONLY

STUDIO ENDS—Tested and Made Into

100 foot Rolls, 10 feet black leader each end.....$2.75
100 foot Rolls, 10 feet black leader each end (on spool).....$3.25
Same on the new Bell & Howell spool.....$3.75
200 and 400 foot Rolls.....2½c per foot
17½-foot pieces for Septs., 3 for $1.00, 7 for $2.00, 15 for $4.00
35-foot pieces in individual cans, 1¾c foot in 1000 foot lots only
White Negative Leader, $2.50 per 1000 feet.
All Films shipped C. O. D.

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It gives you just the panchromatic quality you want in your "stills"

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Portrait Panchromatic Film

It has brilliance, but with it, the gradation which picks up a long scale of tones. It has speed, but also the fine grain so essential for enlarging. And it has the latitude that permits of variation in exposure without loss of quality—in short, it pairs up with Eastman Cine Panchromatic for uniformly high quality. One trial will make you want more Portrait Panchromatic results.

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* * *
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CINEMATOGRAPHER
Aerial Photography Since 1918
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Guardians of the Southern Gate



This sextette of handsome cinematographers constitutes the most remote of the southern outposts of the I. A. T. S. E. and M. P. M. O., all except Jimmy Palmer, who is now assistant to Business Agent Howard Hurd, of Local 659. They are few in number but top notch in quality.

PANCHROMATIC MAKE-UP

Manufactured Exclusively by Max Factor

The first major step toward the standardization of make-up. It will eliminate the use of gaudy, useless colors.

Panchromatic make-up is used in every studio, and its success is an outstanding achievement.

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Out of Focus



Answers to Fans

Dear Mr. Out of Focus:

I have a lovely camera, in a beautiful robins-egg blue finish, and a leather case. I am bothered with scrathes. What shall I do?—Ammie Ture.

Try eating a jar of Kellog's Ant Paste and you wont scratch anymore.

* *

Dear Sir—

I see by the Int. Photog. that you are advertising the Fearless Movement as something new. Hasn't Gilda Gray been doing this for some time. —Iris Arms.

Dear Iris—Try and put her movement in a B. and H.

* *

Tough Times

A brother of 659 went to Crystal Pier to look for work the other day. That night someone asked him how things were. He said that things were so though that a man tried to drown at the Beach and they wouldn't let him.

* *

Did you know that Frank B. Good was Champion Dirt Track Driver at one time. Can he dance soft shoe? Ask Dolores.

* *

Imagine a girl trying to make Frank B. Good.

* *

Saved a dime the other day and got a bill for $10.35 the next day.

* *

Popular Song

As sung by the boys on over time, while on location:

"I hate to see the evening sun go down."

* *

Short Story

Once there was an assistant cameraman who told the First Cameraman that he was using too much light.

* *

Gaffer—Why do you always show the director your prints.

Still Cameraman—Because I do not like to answer in the negative.—(Pat Applied for.)

* *

Old Mother Goosey Rhymes

Twinkle, Twinkle, Little Star,
I wonder how you got so far.
With that nose and three time chin
I can't see how you got in.
But do not worry, I'll keep quiet,
Even tho it is a fight,
And you'll be safe for all th' time,
If you insist on Six Five Nine.

Old Mother Oose Gay
Hadn't much oose yay
For Unions and other such things.
But she met an ellow fay
That wasn't ello yay
And now she wears diamond rings.

Bah! Bah! Black Sheep
Have you any dough
Yes Sir, Yes Sir
Three bags or so.

But when I get thru making disbursements to the merchants with whom I have become indebted, It seems as if "some days you cant save a dime."

There was a man in our town
And he was wondrous wise.
He passed out applications
To all the camera guys.
Some said they would sign them
And some said they would wait.
The moral is told in dollars,
It doesn't pay to hesitate.

* *

Famous Hold-Ups

Jesse James.
Trimming.
Buckles.
Run outs.
Follow Shots.
Paris Garters.
Cloudy Days.
Story Conferences.
Suspenders.
Animals.
Temperamental stars.
Brassieres.
One side out.
Wrong costume.

* *

Number one Stern Brother—Do you know that we used 1200 feet of film on that last 2 reeler.

Number two Stern Brother—What! Tell that cameraman not to crank so fast. Maybe we can make the next one with 1100 feet.

* *

Everybody's Doing It

I.A.T.S.E. &. M.P.M.O. &. G.H.A.D. T.U.B.F.C.V.$.%.".@. etc., Local 659.

Gentlemen—Pardon me if I have made a mistake. I have just received a letter stating where my husband has been assessed for $1.35. Please be advised that we have a receipted bill for our taxes, have paid the assessment for the widening of Cahuenga, the Elks Convention and numerous storm drains west of the Rockies. Therefore, I am sending you a bill for an assessment for $2.00 for the dinner that was spoiled last night waiting for my "Negative" to get home from the studio.—Mrs. Shore Tends.

* *

Did you know that Brother Paul Perry had an I. A. Card over 15 years ago. He was Studge, short for student, in other words assistant Electrician at the Auditorium Theatre in Chicago, and he received the Grand total of twenty-two bucks a week. That our Treasurer almost gave up the Automobile business (Whoa! Taxi Lady) to be with Perry as an operator at 13.50 per same week. Also that our recording Secy ran a projecting machine that required 2 hands and had to rewind his film with the other.

* *

If Brother "Speed" Hall had a half brother could you call him "Half Speed."

* *

Sharpen-Up

Punk—Who was that fuzzy blonde I saw you with.

Bunk—Your glasses must not be optically correct.

* *

Trying to sell a gag to the Editor.

Note.—Our Editor is an Editor and has never shot a foot of film. No proof is required because he admits it.

Me. Si, here is a good gag for the magazine.

Si. Yeah?

Me. Yeah. It goes like this. We will head it "Sharpen Up."

Si. I know. It has to do with a lead pencil. You should try and get some thing about the cameramen and photography.

Me. Well this is all about that. Sharpen up means to get your stuff sharp; in other words, in focus.

Si. Yeah?

Me. Yeah. Now here it is. One cameraman or asst. or still cameraman (you know, put in some names) says to another member in good standing (refer to the books)—"Who was that fuzzy blonde I saw you with?

Si. Why dont you say dizzy. Everyone else does?

Me. Well, fuzzy is an idiom used by the craft, meaning out of focus.

Si. Are they using idioms now that they are short of assts.

Me. Quiet Please. Then the other fellow says: "Your glasses are not optically correct." This means that due to the fact that his glasses have not been fitted properly the party he saw seemed to be out of focus. Dont you think that should print normal?

Si. The density of that gag would require an act of the Board of Executives.

Me. Yeah?

———o———

TO THE TUNE OF WHOOPIE

By George K. Hollister, Jr.

You move a booth, you move a boom,
You sweat to death in a sound-proof room,
Another season you'll lose your reason
We're makin' "Talkies."
Then they holler "quiet," their A. C. isn't there,
Then a camera buckles and everyone tears his hair,
You work all night, you feel like 'ell,
You'll need a crutch, a padded cell,
They'll take you off'n a nice white coffin
For makin' "Talkies."

SUPREMACY!

THE ACADEMY OF MOTION PICTURE ARTS AND SCIENCES

[DOUGLAS FAIRBANKS, President]

Bestows First Award of Merit for 1929

to

CHARLES ROSHER, A.S.C.

and

KARL STRUSS, A.S.C.

For Outstanding Photography in

"SUNRISE"

EXCLUSIVELY EASTMAN

NEGATIVE and POSITIVE FILMS

Such Splendid Acknowledgment Must be Deserved

"Look to Eastman for Leadership!"

J. E. BRULATOUR, Inc.

HOLLYWOOD NEW YORK



Partial view of top floor showing effect of White Enamel for light reflecting purposes.
Monitor and part of side wall being completed.

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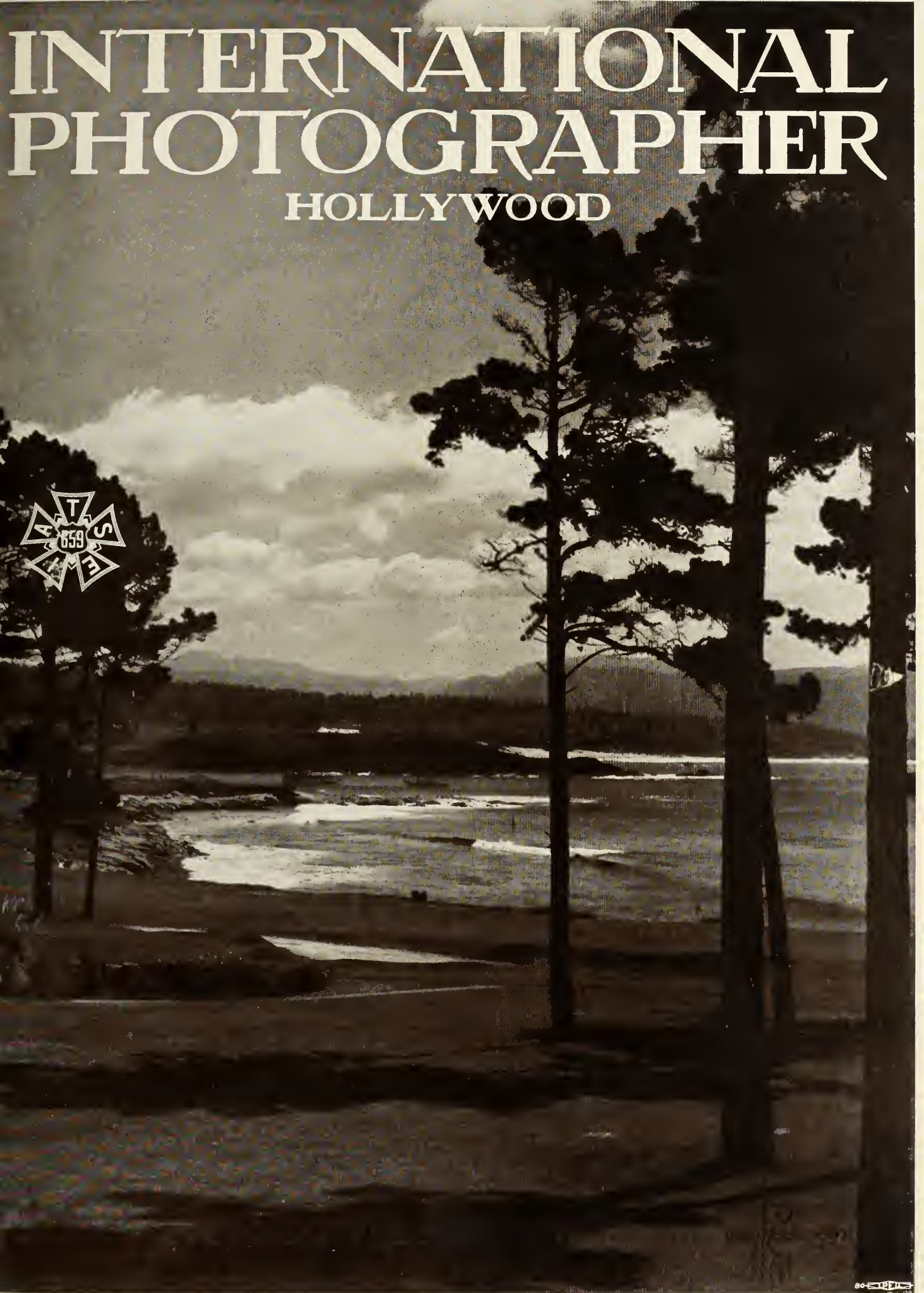
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The INTERNATIONAL PHOTOGRAPHER

Official Bulletin of the International Photographers of the Motion Picture Industries, Local No. 659, of the International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators of the United States and Canada.

Affiliated with Los Angeles Amusement Federation, California State Theatrical Federation, Cailfornia State Federation of Labor, American Federation of Labor, and Federated Voters of the Los Angeles Amusement Organizations.

Vol. 1 HOLLYWOOD, CALIFORNIA, JULY, 1929 No. 6

"Capital is the fruit of labor, and could not exist if labor had not first existed. Labor, therefore, deserves much the higher consideration."—Abraham Lincoln.

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The INTERNATIONAL PHOTOGRAPHER published monthly by Local No. 659, I. A T. S. E. and M. P. M. O. of the United States and Canada

HOWARD E. HURD, *Publisher's Agent*

SILAS EDGAR SNYDER - - - - - *Editor-in-Chief* IRA B. HOKE - - - - - - - - - *Associate Editor*
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Entered as third class matter February 13, 1929, at the Post Office at Los Angeles, California, under the provisions of Section 435½ Postal Laws and Regulations. Permit No. 1997

Subscription Rates—United States and Canada. $2.00 per year. Single copies, 20 cents

Office of publication, 423 MARKHAM BUILDING, 6370 Hollywood Boulevard, Hollywood, California. HEmstead 1128

The members of this Local, together with those of our sister Locals, No. 644 in New York, No. 666 in Chicago, and No. 665 in Toronto, represent the entire personnel of photographers now engaged in professional production of motion pictures in the United States and Canada. This condition renders THE INTERNATIONAL PHOTOGRAPHER a voice of an *Entire Craft*, covering a field that reaches from coast to coast across the nation.

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———o———

LOCATION NOTICE

During the past month we have had a number of companies reporting location trips. These trips have been reported in a satisfactory and business-like manner by the cameramen and have enabled our Business Representative to check everybody carefully, thereby assuring members full protection while away from home.

As soon as you know definite details of any intended location notify the office the following information:

Place of location.
Time you expect to be away.
Time of leaving.
Names of all cameramen in the company.
Your chief electrician's name.
Names of your grips and propertymen.

———o———

PENSION NOTE

Will H. Hays is championing an old-age pension for teachers. This will be cheering news to all the veteran cameramen in Hollywood, whose real job is to teach the new sound directors what it's all about.—The Film Daily.

———o———

CONDENSED LABOR

Capital is condensed labor. It is nothing until labor takes hold of it. The living laborer sets free the condensed labor and makes it assume some form of utility or beauty. Capital and labor are one, and they will draw nearer to each other as the world advances in intellect and goodness.—David Swing.

THE A. F. L.—WHAT IS IT?

The American Federation of Labor is not a "union" in the accepted sense—it is a federation of unions.

It has no power other than that given to it by affiliated national and international unions. These affiliates retain control of their internal affairs. They are the sole judge of their wage scale, working conditions, etc. Each has undisputed power to adjust industrial disputes in their respective jurisdictions, and they are protected from invasion by rival organizations.

The national and international unions are the base of the American Federation of Labor.

State and city central bodies, composed of representatives of local affiliates of national and international unions, are also affiliated with the A. F. of L., as are local unions in trades and callings where no national union exists.

The A. F. of L. binds this family of trade unions into a voluntary federation.

It maintains inter-communication between affiliates, and is in constant correspondence with a corps of organizers throughout the country.

The American Federation of Labor guards the worker's interests in the national Congress. It indorses and protests in the name of labor. It has secured relief from burdensome laws and governmental bureaucracy.

Annually it assembles the wage earners in convention to exchange ideas and methods, to promote mutual interests, to develop greater solidarity, to proclaim the workers' burdens, aims and hopes.

The trade unions reflect, in organized form, the best thought, activity and hopes of the wage workers.

The trade union is a factor in all social movements. It raises living standards and checks wage reductions. It promotes fraternity and fosters temperance and liberality.

In short the American Federation of Labor unites all classes of workers under one head, through their several organizations, to extend education and establish democracy in industry.

———o———

I. A. MAN SCORES

Brother E. A. Harrell, Secretary of Local No. 226, Waco, Texas, has been elected to the office of Assistant Reading Clerk of the House of Representatives of the State of Texas by a total of 103 votes against his opponent's 34. Another instance of a member of the Alliance attaining political importance.

Look for This Label



Label of the Journeymen Tailors' Union of America

On your tailored suits and overcoats. It means that your clothing will be made in well-lighted, clean workshops by expert tailors who are assured of the eight-hour day and decent wages.

The Union Label is not only a sign of wholesome, cleanly standards of manufacture, but it is a symbol of Americanism, as the Union Label appears only on American made products.

DEMAND THE UNION LABEL

The fortune of the trade unionist is in his own hands. The collective body of American workers can accomplish any end by mass effort. The great cause can be served most immediately by persistent buying of Union Label Products.

———o———

PORTAL TO SUCCESS

The men who try to do something and fail are infinitely better than those who try to do nothing and succeed.—Lloyd Jones.

———o———

THE SHARP STICK

A special dispatch from Washington recently said: Secretary of Labor James J. Davis today read the riot act to a $200,000,000 industry, employing 35,000 men and women—the paper box board industry.

He severely critized failure of the industry to live up to the so-called "Washington agreement," under which plants were to be operated at reduced hours, five days a week, with a clean-up on the sixth day and plants closed on Sunday. It is charged that one-half of the industry has gone back to operating eleven to thirteen hours per day, six days a week, with the clean-up, an essential part of the manufacturing process, taking place on Sunday, making a seven-day week.

Asserting that thirteen hours a day toil was "fearful," Davis said:

"It may be necessary to lay the whole box board industry before the Federal Trade Commission for a discussion that will reach every avenue of the market and the public."

The Birth of the Cinema

BY

W. DAY, F. R. P. S., F. R. S. A.

A Sketch of Cinematography from the Camera Obscura to the Living Picture. A British View as Presented in an Article Recently Published in the London Times.

THE moving picture has become a factor of incalculable value in the promotion of human progress and happiness. Town-dwellers in this and other countries to whom travel and adventure are denied may now, while comfortably installed in a luxurious theatre, view the wonders of the world and share the experiences of the explorer, or the thrills of the hunter, in the tropical forests of Africa and the frozen spaces of the Arctic regions; while the life of the lonely settler in the backwoods of Australia, or the wheat-producing prairies of Canada, may be gladdened by living scenes from the cities and towns of the Homeland. This miracle, which is the ultimate expression of the age-long theory of the persistence of vision, has come to pass within the last 30 years; but the appeal which the portrayal of movement makes to the imagination may be traced back to remote antiquity. The earliest manifestations of human endeavor in this direction are probably the delineations of the trotting bear, with two complete sets of legs, drawn by the Cro-Magnon race centuries before the Christian era, which still adorn the caves of Altamira, in Northern Spain.

But the realization of this primitive ambition has had to wait through the centuries on the development and perfection of the science of optics and of the photographic art. First came the camera obscura. Its invention is generally ascribed to the famous Neapolitan savant of the Sixteenth century, Giovanni Battista della Porta, but as a matter of fact the principle of the simple camera obscura, or darkened chamber with a small aperture in a window or shutter, was well known and in practical use for observing eclipses long before his time. The first practical step towards the development of the camera obscura seems to have been made by the famous painter and architect, Leon Battista, in 1437, contemporaneously with the invention of printing, and it was referred to by Leonardo da Vinci as a method he adopted for securing perfect perspective in his drawings. In the first edition of his "Magia Naturalis," published in 1558, Giovanni Battista della Porta disclosed as a great secret the use of a concave speculum in front of the aperture in the camera obscura, to collect the rays passing through it, when the images will be seen reversed, but by prolonging them beyond the centre they would be seen larger and unreversed; and he notes its application to portraiture and to painting by laying colors on the projected images. In the second edition, which was not published until 31 years later, he discloses the use of a convex lens in the aperture as a secret he had intended to keep, but in the interval the use of the convex lens was discovered and clearly described by Daniello Barbaro, a Venetian noble, in his work, "La Pratica della perspective," published in 1568. Thus came into use the camera obscura with the convex lens, the forerunner of the modern photographic camera.

The next stage in the evolutionary process was the invention of the optical or magic lantern, which provided a popular form of entertainment

INCANDESCENTS!

That Is the Magic Word in the Production of Sound Pictures.

INCANDESCENTS

Are Outselling the Market Because Mole-Richardson Have Fabricated a Quality Lamp for Every Purpose in Lighting a Production.

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MOLE-RICHARDSON, Inc.

Studio Lighting Equipment

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until it was displaced by the moving picture. The invention of this apparatus is usually attributed to Athanasius Kircher, a German scholar and mathematician, of Geisa, near Fulda, who was living in Rome in the Seventeenth century. However that may be, he describes such an instrument in his "Ars Magna Lucis et Umbrae," published in 1646, and with the aid of a scientifiically minded mechanic constructed a lantern with the definite object of projecting an image on a white wall or screen. A woodcut in the book shows the lantern in use; and we learn from an observer of the period that the rooms of the Jesuit College at Rome were filled nightly with all nobles and grandees who thronged to witness the wonderful picture of a skeleton shown upon a screen. Although the method of projecting a picture upon a screen was thus early discovered, and photography was invented at the beginning of the last century, the nearest approach to the moving picture until recent years were the dissolving view and the phantasmagoria which mystified and delighted our grandfathers.

To England belongs the honors of first producing a photograph, or, as it was then called, a "photogenic drawing." In June, 1802, Thomas Wedgewood, the fourth son of Wedgewood the potter, published in the Journal of the Royal Institution a paper giving "an account of a method of copying paintings upon glass and of making profiles by the agency of light upon nitrate of silver," with observations by Sir Humphry Davy. But although Wedgewood prepared a paper which received the image and retained it for a time, he had not, when he died three years later, discovered a method of permanently fixing his prints, no washing being sufficient to eliminate the traces of the silver salt which occupied the unexposed or shaded portions.

The Daguerreotype

The first to find a process of photography which gave pictures that were subsequently unaffected by light was Nicephore de Niepce, who, with his partner, Louis Jacques Mande Daguerre, gave us permanent portraiture under the process named after the patentee, "Daguerreotype." Then came the invention of William Henry Fox-Talbot, of Lacock Abbey, Wiltshire, which placed photography on a commercial basis. Fox-Talbot described his process in a paper to the Royal Society in January, 1839. This process Talbot protected by a patent in 1841. It is remarkable to note that in his provisional patent specification he claimed to be able to secure photographs of any rapidly moving object and so reproduce life-like action. This claim, however, he was unable to substantiate, and it was deleted from the specification, but his process of photography laid down the principles which form the basis of cinematography as it is known today.

While photography was thus being perfected, researches into the problem of the persistence of vision were proceeding on parallel lines. Dr. Peter Mark Roget, secretary to the Royal Society and author of the notable "Thesaurus," was the first to find a clue to the portrayal of movement by means of pictures. He disclosed it in a remarkable paper, read before the Royal Society on December 9, 1824, entitled "Explanation of an optical deception in the appearance of the spokes of a wheel seen through vertical apertures." The phenomenon on which Dr. Roget based his theory was a simple, everyday occurrence. Watching a baker's cart through a venetian blind, he noticed that the rapidly revolving wheels appeared to be stationary when he passed his eye up and down the blind. This effect was produced by the slits of the blind acting as shutters and giving a momentary view of the wheels in a stationary position.

Early Motion Pictures

Based on this principle was the little toy invented by Sir John Herschell in 1825, which he called the "Thaumatrope." Ten years later two practically identical instruments for the portrayal of lifelike motion by means of pictures were invented —the "Phenakistoscope," by Dr. Plateau, of Ghent, and the "Stroboscope," by Dr. Stampfner, of Vienna. Two of these instruments were on view in 1838 at the opening of the Polytechnic Institute, Regent street, which therefore has the credit of giving the first public exhibition of the results of these early efforts to produce moving pictures. In the meantime Dr. Faraday had given much time and study to the theory advanced by Dr. Roget, and in 1831 gave to the Royal Society an explanatory paper entitled "A peculiar class of optical deceptions showing wheel phenomena."

The next noteworthy step in the direction of the portrayal of movement from inanimate drawings was the "Daedaleum," invented by Dr. W. G. Horner, of Bristol, who published a full description of his invention in 1834. This same instrument was, however, patented in 1860 by a Frenchman named Devigny, under the name of the "Zeotrope," or Wheel of Life. It consisted of a hollow cylinder turning on a vertical axis, and having its surface pierced with a number of slots. Round the interior was arranged a series of pictures representing successive stages of such a subject as a galloping horse, and when the cylinder was rotated the observer, looking through the slots, saw the horse apparently in motion. The pictures were at first drawn by hand, but photography was afterwards applied to their production.

Thus far all the inventions based on the theory of the persistence of vision were the fascinating mechanical toys of our grandfathers. It was an Austrian lieutenant, Franz Uchatius by name, who first turned his attention, in 1851, to the projection of lifelike movements on a screen by the use of an optical lantern. He painted figures upon a glass disk and used an opaque slotted shutter disk to make the successive phases of the movement portrayed. A similar instrument was later evolved by Monsieur Dubossq and exhibited by him at the Polytechnic Institute, Regent street, in 1852, where also were depicted many remarkable lifelike moving effects produced by mechanical lantern slides.

"Life in the Lantern"

In 1865 John Arthur Roebuck Rudge, a native of Bath, began his researches on the subject of the portrayal of movement by photographic means, using an optical lantern to show images on a screen by means of lantern slides taken to show successive phases of movement. This invention Rudge called "Life in the Lantern," and he undoubtedly succeeded in mystifying his audiences by showing on the screen a human head going through the movements of facial contortion. Some time later Rudge improved on his invention and produced what he called the "Bio-Phantoscope," an instrument which contained moving parts working from one rotating handle almost similar to those of the present-day motion-picture projection machine. It was, indeed, the "Bio-Phantoscope" which taught W. Friese-Greene, the inventor of commercial cinematography, how to make a picture come to life upon the screen. Another inventor who gave lifelike movement to the picture of a human head was Beale, of Greenwich, who in 1867-8 invented an arrangement whereby 16 full-sized views of a man's face painted upon a glass disc were exposed through an opening cut to represent the man's head and shoulders, the face being shown smiling and making a series of grimaces. Mr. Beale was also the inventor of the "Choreutoscope," a mechanical lantern slide for showing various phases of movement. Another method of exhibiting cinematographic effects which was invented about the same period was to bind the pictures in book form by one edge, and then release them from the other in rapid succession by means of the thumb or some mechanical device as the book was bent backwards. The subject was thus viewed, not by projection, but directly, either with the unaided eye or through a magnifying glass. Such was the invention patented on March 18, 1868, by Linnett, who gave it the name of "Linnett's Kineograph." A year later came another "wheel of life," the invention of Thomas Ross the younger. This invention embodied all the principles subsequently adopted by Thomas Alva Edison in his "Kinetoscope." In 1870 Professor E. J. Marey, of Paris, embarked on the research of the analysis of motion, and after many failures he secured in what he called a "Stero-Zoetrope" some remarkable records of movement, including photographs showing the blood and heart in action and the movement of gnats' wings.

The beginning of the moving picture as it is known today seems to have been the outcome of an American Senator's love of horses and an Englishman's love of photography. While making a photographic survey of the Pacific Coast in 1872, Edward Muybridge, a native of Kingston-on-Thames, made the acquaintance of an American Senator who was the owner of race-horses, and a discussion arose as to whether a horse in trotting lifted all four feet off the ground at one time. Muybridge's contention was that it did, and to prove his theory he placed in a row twelve cameras, the shutters of which were opened and closed electrically by the passage of the horse. He thus secured a series of pictures in rapid sequence of the actual movements of a horse when trotting. These pictures he succeeded in reproducing on a glass disk and exhibited them on a screen, by means of an instrument which he termed his "Zoo-Praxiscope." Muybridge afterwards portrayed the lifelike movements of many animals, as well as of human beings, for the Pennsylvania University. Professor Marey afterwards established a studio in Paris for investigating the motion of animals by similar photographic methods.

A later development of the Zoetrope was the "Praxinoscope," invented in 1877 by Professor Reynard, of Paris. Instead of viewing his pictures through slots he used a revolving double drum. A band of pictures was carried on the interior of the outer drum and reflected in a series of mirrors arranged on the inner drum, and so produced the illusion of lifelike movement. Professor Reynard afterwards produced a larger instrument on the same principle which he called the "Theatrixinoscope," for use in theatres and halls.

Edison's moving peep show, which he called the kinetoscope, was patented in America in 1891, but it did not see the light of day until 1893. The instrument gave rise to the Edison standard gauge of film, with the 4-hole perforation as used today. The brothers Lumiere, who had been working in France on similar lines, also exhibited moving pictures in England, and they were closely followed by R. W. Paul, an optical instrument maker in Holborn.

The "movies," as they were called, soon became popular as a turn at the music halls. Then enterprising promoters hired empty shops which they converted into cinemas, charging a few pence for a ten minutes' program. While British producers contented themselves with short "comics" or "scenics," the French, led by Charles Pathe and Louis Gaumont, began to make film dramas, and they were quickly followed by films depicting adventures in the Wild West. As the films grew in length, buildings with ample seating accommodation were constructed specially to exhibit them.

"THE GREAT GABBO"

Lewis W. Physioc has just completed three complex special process shots for Director James Cruze to be cut into "The Great Gabbo," said to be Cruze's greatest effort since "The Covered Wagon."

———o———

REGGIE LYONS' LAMENT

(Heard on the Barrymore set, as sung by Fred Eldredge).

(Not to the tune of Gunga Din)

To shoot with a fifty is always quite nifty
And a forty cannot be beat.
On a loose-head the focus is much too shifty;
I'd sooner have a nice soft seat.

The three is a fad, although not bad.
A set shot with it is great.
Fours make me mad and also quite sad;
But a five just leads to the gate.

A disk and a six never quite mix;
They put lots of gray in your hair.
Focus changes do tricks that lead to the sticks,
And will send you straight to the air.

Tony's all right, although it's a fright
The raps that he makes me take.
He calls me his "looie" which is driving me screwie.
I'd rather be back on a rake.

———o———

Roy Klaffki says his new Ford is faster than Eastman Super Speed.

Wm. Horsley Laboratories, Inc.

6060 SUNSET BOULEVARD

HOLLYWOOD, CALIF.

The Oldest Commercial Laboratories in the U. S. A.

and the Only Independent Laboratories Equipped

with Spoor-Thompson Developing Machines.

Vitacolor

In the research leading up to the development of Vitacolor, the Electromagnetic theory of light and the phenomenon of the dispersive power of light have been utilized to a great extent.

The mechanical action of the Vitacolor filter could easily be compared to a wireless receiving station which is tuned to respond to the various wave lengths. The Vitacolor filter is constructed also to receive the various wave lengths composing the natural colors. In nature each color is a combination of wave lengths and any object has a selective power of reflection. This means that when light reaches the surface of an object susceptible of reflection, which is the rebound of light-waves from the surface on which they are incident, it either penetrates beneath the surface or it rebounds directly from the surface with more or less absorption, so the degree of coloration of the object depends on the amount of rays partially or totally absorbed by the object.

This mechanical action of absorption and reflection of rays of different wave lengths shows clearly that any natural colors formed in nature are always the results of more or less intricate combinations of different wave lengths.

The Vitacolor filter has been designed to transmit on the panchromatic emulsion an emission of vibrations similar to the multiple rays refracted by colored objects. The main features of the Vitacolor filter reside in what is known as fusion bands, control or tuning areas. The action of the control or tuning areas depends directly upon the nature of the wave transmitted by the adjacent filters and the fusion bands produce compounded series of vibrations in harmonic progression, which add to the delicacy of the half tones, while the control or tuning areas correct the unequal factor of transmission of filters used in color photography.

One of the advantages of the Vitacolor filter is to permit quite short exposures. For instance, an ordinary exposure of a scene by the sea, in good light, which would be F-16 for black and white pictures, would be F-11 for Vitacolor. Pictures can be taken under practically the same light conditions which prevail for good black and white work. Scenes have been taken in early morning with high fog obscuring the sun, resulting in studies resembling the soft color tones of the old masters. No special fast lens is required, and any regular lens employed for taking black and white motion pictures will give excellent results.

Special Vitacolor attachments are fitted to standard cameras and projecting machines, with a slight alteration which in no way impairs the effectiveness of the machines for regular use in taking and showing black and white pictures.

Innumerable prints may be made from the original Vitacolor panchromatic negative, also reduction from standard 35 mm. negative to 16 mm. print without any loss in color rendering.

After a demonstration of Vitacolor anyone with a knowledge of color photography will be convinced that the Vitacolor process is not solely concerned with the transmission of single color values, as such, to the emulsion of the film. What really takes place is to record the composite color vibrations on the panchromatic emulsion in substantially the same manner and condition as they are registered on the retina of the human eye. All of the conditions which attend the natural transmission of color vibrations are preserved intact so far as is possible.

This is necessary if the result is to appear natural on the screen because, in the dark projection room, nearly all natural conditions are perforce removed, and if they are not carried throughout the process of color photography intact, they are not exhibited on the screen.

EXPANSION

MAX B. DU PONT VITACOLOR CORPORATION, 2079 North Occidental Blvd., Los Angeles, Calif., announces that Will H. Howse, General Manager, has gone to New York City to open an Eastern Branch of Vitacolor for the purpose of convenience in handling the rapidly increasing business of the company in that section. Important supplementary announcements will be made in The International Photographer for August.

VITACOLOR

It gives you just the panchromatic quality you want in your "stills"

The New

Eastman

Portrait Panchromatic Film

It has brilliance, but with it, the gradation which picks up a long scale of tones. It has speed, but also the fine grain so essential for enlarging. And it has the latitude that permits of variation in exposure without loss of quality—in short, it pairs up with Eastman Cine Panchromatic for uniformly high quality. One trial will make you want more Portrait Panchromatic results.

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

Sound Proof Stages Not Necessary

BY

DON EDDY, *Publicity Director R. K. O.*

"Quiet, please!"

A bell rings a warning jingle. The great iron doors at the entrance of the sound stages have rolled closed. The cameraman is locked up in his sound proof "doghouse." The recorder is in his booth. All is as quiet on the stage as a mouseless house on Christmas eve.

A man at a little switch box sees a light go on, and calls: "Camera ready!" A minute later he adds: "Recorder ready!"

A prop man with two painted sticks steps in front of the camera, directly in front of the scene to be photographed.

"Motors!" calls the director. And a minute later, "Mark it!"

The prop man slaps the sticks together and steps out of the camera range and Bebe Daniels goes into her song!

A scene from "Rio Rita," the all-talking, all-musical Radio Picture version of the Flo Ziegfeld extravaganza is in production. It is an appropriate time to examine the sound system used by RKO Studios. There's R. H. Townsend, head of the RCA Photophone system on the West Coast, over there by Luther Reed, who is an associate producer on the film.

In the next intermission period, we'll call him over and ask for an explanation of the Photophone system.

Two bells relieve the tension on the stage. The doors roll open for ventilation. A buzz of conversation slaps the silence. Townsend smiles a greeting and walks over to the visitors.

"It all starts at the 'mike'," he says in answer to a request for a description of the Photophone system.

He pointed to the little round metallic instrument hung above the actors' heads just out of camera range.

"The sound wave started by speech or music is changed by the microphone into electrical vibrations. magnetic field. On this loop of wire

[At the request of some of our brothers far away from Hollywood, *The International Photographer* herewith presents a few photographs and a short sketch of a sound system—in this case that originated and used by R. K. O. This system, simple and easily operated, has enabled the R. K. O. Studios to turn out production both quickly and satisfactorily. While this sketch is not technical it will be found interesting by anyone interested in talking pictures.—EDITOR'S NOTE.]

These vibrations are amplified and transmitted through the unit's system to the recorder."

Townsend led his guests over to the recording booth. There on a platform, built on a little truck, was a compact system. At the right was a series of panels. At the left, raised on a box, was an apparatus looking not unlike a camera.

"The top panel on this board," Townsend explained, "is a 'mixing panel: There are six knobs or regulators on the top two panels. Each dial controls the output of a microphone. In the case of an orchestra being recorded, the mikes are placed to catch the contrasting instruments and the volume of these separate parts of the band can be regulated by the dials. The same procedure can be followed in recording the dialogue of a number of people.

"The regulator or central control on the panel next to the bottom is the general volume control. With this, voices or instruments can be made to fade out, or be boosted to a high level. The bottom panel contains the meters. The instrument at the left is used to record the electrical vibrations caused by sound waves on the film."

He pointed to a delicate little device which protruded slightly below the magazines containing the film.

"Here is a loop of wire in a strong is cemented a tiny mirror. From the mirror is reflected an intense light which in turn is focused on the film, exposing it and making the sound track. The electrical vibrations, set up by the sound waves and amplified through the system cause the wire to twist.

"As the mirror vibrates, there is an increase or a decrease in the light falling on the film; the light being focused through an optical system. By varying the width of the exposure, the sound track is thus photographed. It is photographed in precise synchronization with the photography of the action."

The visitors waited respectfully for a moment and then one said: "And that's all? It sounds a great deal more simple than I had expected."

"It is a great deal more simple than the layman has been led to believe, this recording business," Townsend said.

"Our greatest difficulty just now is not in the perfection of the equipment but finding men who know how to use it.

"There is really nothing very elaborate or complicated about recording. It's largely a matter of placing microphones, twisting dials and letting the system work for you.

"The trouble is that we have a hard time finding men who will let the system work. They are more anxious to prove their engineering ability than their knowledge of requirements for the 'mike' itself.

"A man who knows tonal qualities, who has a dramatic instinct which tells him that a sentence here should be whispered, an emphasis put on this word, a pause following that, is the best recorder.

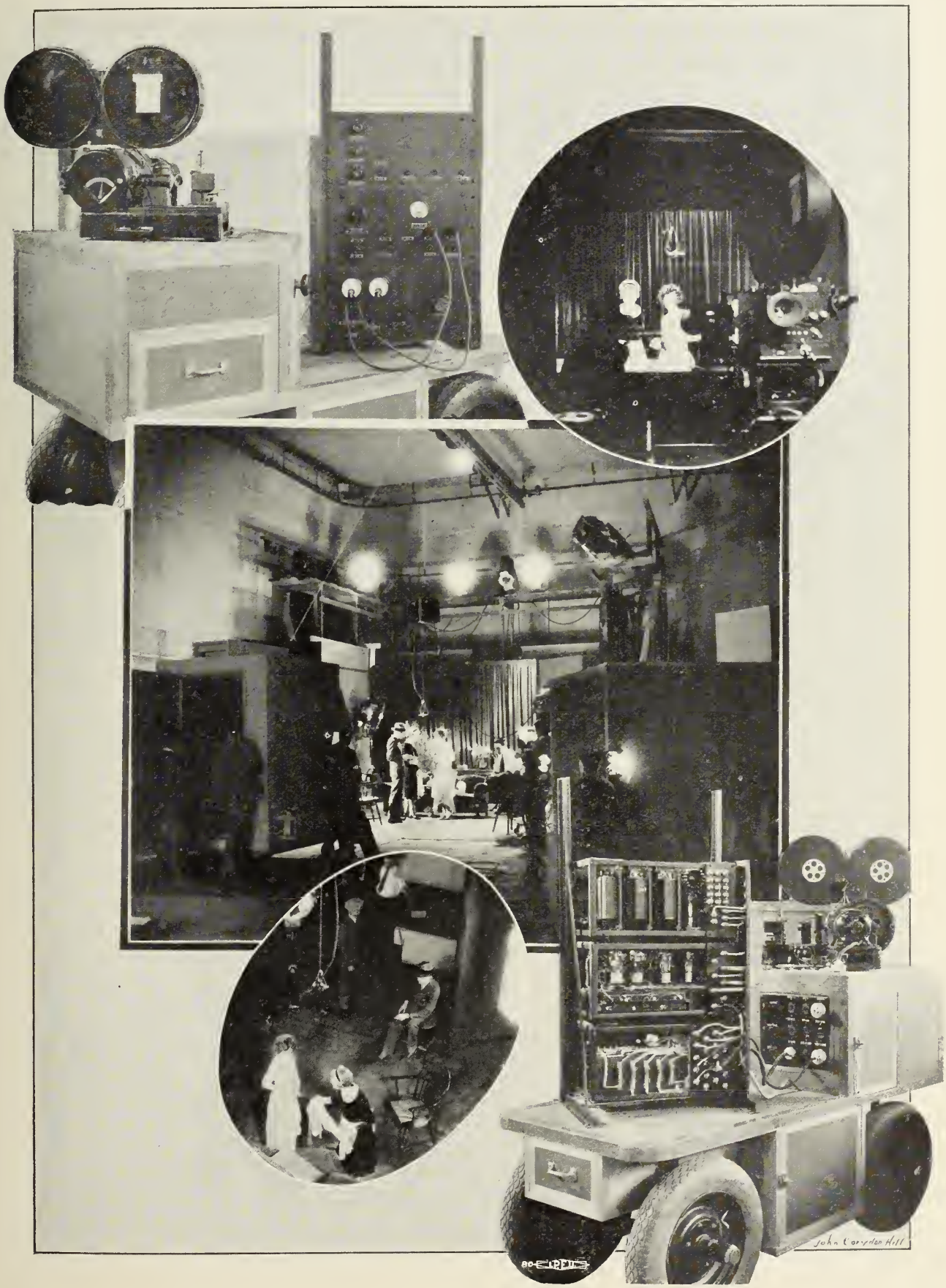
"It is not necessary to have sound proof stages to make sound pictures," Townsend concluded. "Its mobility is one of the great advantages of the Photophone system and sound pictures can be taken in any place which is free of outside disturbances."

Top Left—A full view of the RCA Photophone equipment. The "mixing panel" minus the top panel is at the right. The film magazine and the loop on which the mirror is cemented, can be seen slightly to the right of the film magazine. At left of this is the camera and the pilot ray.

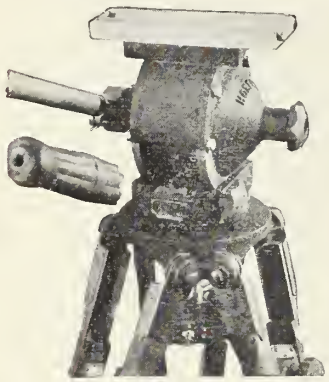
Center and Circle—A sound stage at the RKO Studios, where Radio Pictures are made. The camera booth is at the left. The RCA Photophone recording unit is at the right. In the center of the stage is the microphone suspended over the heads of the players.

Oval—Note the microphone suspended out of camera range, above heads of players. Often it is camouflaged in various ways.

Lower Right—Complete reverse view of RCA Photophone equipment used at RKO Studios mounted on stage truck. Note tubes and wiring system.


John Corydon Hill

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Lasky Leaks

Vic Milner, ably bothered by Mellor, Knott, Rand, Ahearn, Myers and Griggs, is supervising Mr. Lubitsch's "The Love Parade," featuring Maurice Chevalier. No, the title has nothing to do with the camera crew.

Al Gilks will tell Pyle, Pittack and Blackstone what filters to use on "Kabitzer," to start June 24th, with Sloman directing. Al's assistants. Fapp, Wright and Martinelli, will hold slates and do other odd jobs about the set. Martinelli's marriage on June 21st doesn't seem to interfere with his work, so far.

Eddie Cronjager, of Malibu Beach and Marathon Street, will explain actinic values to Mr. Sutherland, directing "Fast Company," featuring "Jack" Oakie. "Skeets" Gallagher and Evelyn Brent. Eddie's focus fiends will include Metty, Reynolds, Mayer, Brooks, Burgess and Wellman. Some fast company.

Roy Hunt has just finished shooting "The Virginian" and will next attack a Bancroft production under the direction of Mr. Cromwell. Roy's colleagues include Lang, Hallenberger, Clemens, Adams, Wright and Southcott, who so far hold the studio record for weight-lifting and figure they should be hired by the pound rather than by the week—perhaps "weak" is the word.

Since being reclassified under Class "2A" instead of "3A," the assistants are forming a "Gianinni Club" and will loan any amount on Wednesdays only (pay day at Lasky's).

Harry Fischbeck plus Stout, Pierce, Wimpy, Merland, Clothier, Lane, Shirpser and Rhea, are on the last lap of "Illusion" for Mendes, featuring Buddy Rogers and Nancy Carroll.



Virgil Miller hopes the Class "2A" classification will restore the original color of his hair. It has taken on a grayish hue as a result of changing camera crews every sixty hours and keeping his weather eye on the non-observers of the Sabbath. He feels that he can now devote a little time to photographic problems, even if he forgets how to "play checkers" on the movie checker board. It's the other fellow's move now.

Looks like six companies next week, perhaps seven, which means a total of fifty members of 659 being kept out of mischief.

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Announces that he has just finished the Aerial-Akeley sequences on Columbia's big sound special, "**FLIGHT.**"

In making close-ups and follow shots with sound, Mr. Dyer found the Akeley Camera incomparable.

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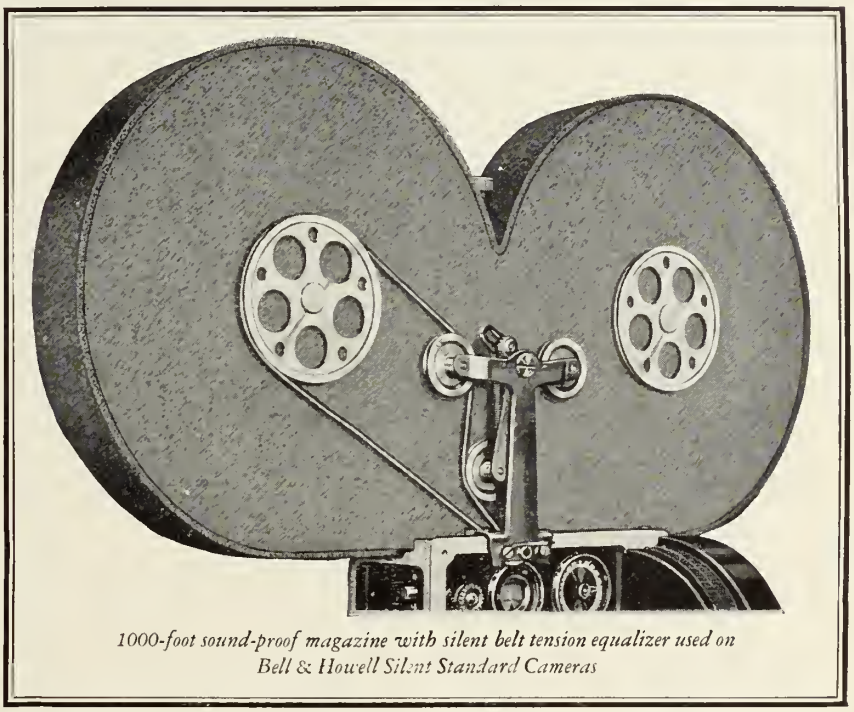
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Silent fiber gears alternate with steel gears. Solid bronze and hardened steel bearings are used, tight yet free-running. Camera interior and shutter blades are sound-proofed with felt. Special magazines are sound-proofed through alterations in inner parts and outer sponge rubber covering. Film take-up is automatically controlled by silent belt tension equalizer.

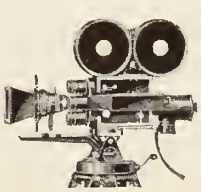
For 22 years Bell & Howell have kept just a little ahead of the game. When "talkies" came we were ready. We shall be glad to consult with you on any phase of sound-recording installations.



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Sound and the High Intensity and Plain Carbon Arc

BY

EUGENE (M. WALTER) SEBRING *Press Secretary L. U. No. 40, L. B. E. W.*

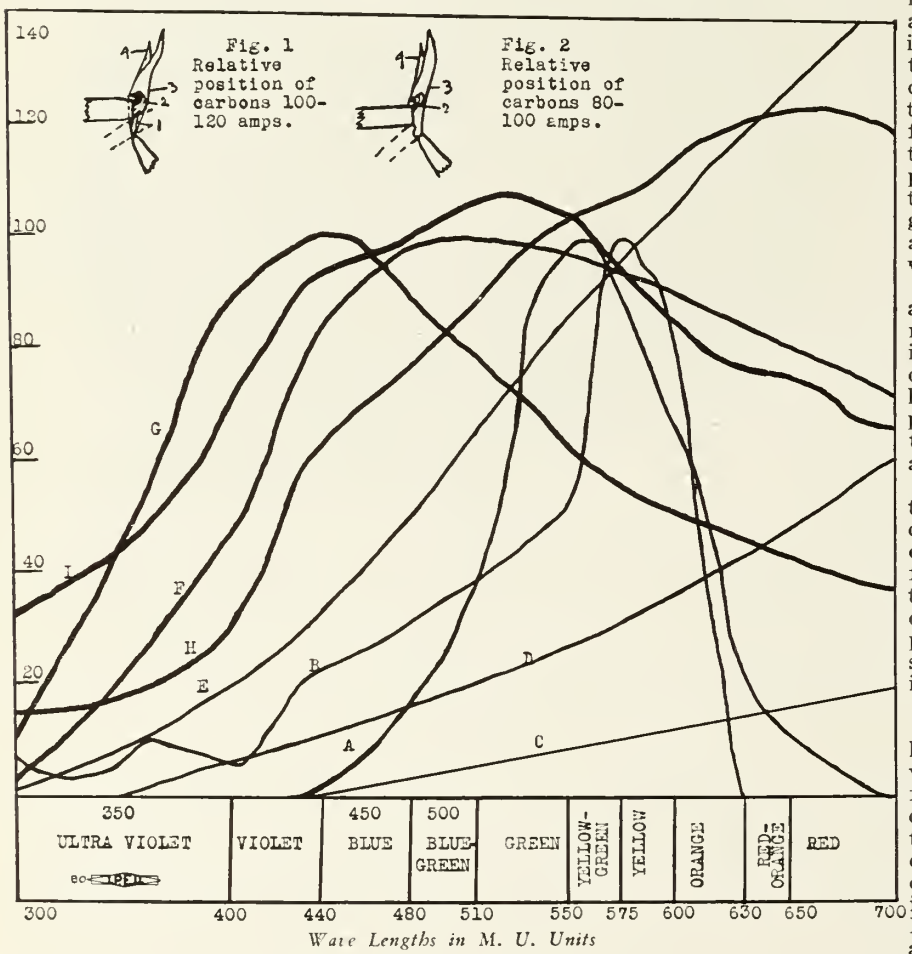
With the inception of Voice Synchronization with the film for a while it was thought that the carbon arc was destined to take it place with the kerosene lamp and other antiques.

Through the faithful efforts of various electrical chiefs and cameramen and untiring research work in studios such pictures as "Fox Movietone Follies," "Hearts in Dixie," "The Black Watch" by Fox, incidentally the jubilee scene of "Hearts in Dixie" was shot with the all carbon lamps; 42 sun arcs, 163 twin arcs, 20-80 amp rotaries and 12, 120 amp spots were used. Katrinka carnival shot used 30-24-in. sun arcs, 2-36-in. sun arcs, 15 or 20, 80 amp rotaries and 75 or 80 twin arcs. At no time during filming of the above pictures was any difficulty encountered with either ripples or gear noises.

At the Paramount studio and R. K. O. through the efforts of Chief E. Miller and William Johnson in their experimenting with choke coils and toggle switches (to cut out the motors during the actual shooting of a scene) many useful things have been discovered. One of the questions uppermost in mind and used as an argument against arc lighting was motor noises. E. Miller uses a toggle switch to cut out the motor.

It is found that by cutting out the motor and feeding the carbons by hand a shot of 25 minutes' duration has been made. This might be continued indefinitely until you had burned up an entire trim. By using a choke coil, Creco scoops are being used with very excellent success for overhead lighting. The only bad feature being the fact that they must be shaken up oftener than for black and white photography. Paramount's "Thunderbolt," "The Woman Trap" and "The Virginian" were shot with 75% carbon arcs.

We do not question the fact that for perfect motion photography one must have noonday sunlight. I should like to present for your consideration a chart of tests compiled by the Kress Engineering Company.



Wave Lengths in M. U. Units

A. Visibility of the naked eye in respect to the range of the spectrum.

B. Cooper-Hewitt light emissions at various wave lengths.

C. Curve shows energy distribution in the spectrum of a vacuum type lamp.

D. Curve is a gas filled lamp operation at medium efficiency.

E. Curve is of a modern high efficiency high wattage, gas filled lamp used in picture studios.

F. Curve is of noon sunlight.

G. Curve of north skylight.

H. Curve is of a direct current, hard cored carbon arc lamp. The energy radiation from the positive crater at a color temperature of 4000 degrees C.

I. Curve of energy distribution in relation to wave length of an high intensity arc.

Agreeing that noon sunlight is perfect lighting properly reflected for photography, allow me to call your attention to curve "I." compared to curve "F" and if you must have an increase of red it is presumed you also desire a proportionate increase in the ultra violet. Again permit me to sight curve "E" to be compared to curve "H." In your observation of the above mentioned curves you have found that curve "I" is almost identical with the light you strive for in photography curve "F." Presuming that there is need for more red, after glancing at and comparing curve "E," a studio type incandescent lamp, with curve "H" the plain carbon (twin arc) "H" as you see gives you an increased percentage in the deep red and infra-red over curve "I." It is timely now to discuss and compare other features of the carbon arc and high intensity arc. The following is parts of and additions to an article in the Journal of Electrical Workers and Operators, 1927 and 1928.

(Much credit and thanks is due to the National Carbon Company, Incorporated, Mr. Frank Benford, General Electric Engineer, in the twenty-fourth number of the Society of Motion Picture Engineers; Mr. Ashcraft, of the Ashcroft Automatic Arc Company of Los Angeles; Mole Richardson and others, for their assistance in compiling the following tests).

The High Intensity Arc

The H. I. arc as used in studio lighting for photographic purposes, which, although radically different from the plain carbon, both have current passing between spaced electrodes, both have carbon as current carriers, but here the resemblance ends. In the carbon arc the carbon itself is the source of light. In the H. I. arc the carbon is secondary and acts as holder for the real source of light which is a small body of luminous gas. The current density in the carbon arc is 0.33 amps per sq. mm. of crater surface. The H. I. arc is approximately four (4) times greater or 1.2 amps per sq. mm. of crater surface. These differences emphasize the fact that the H. I. arc is radically different and requires its own mechanism and technique for its proper operation.

This is not the first arc to use a salt-bearing electrode for the production of luminous gas, but it is the first one to so control these gases

that they may be used for illuminating purposes. Plain carbons have always given some kind of a crater in the positive electrode, so that two of the elements of the H. I. arc are old in the art of illumination. The feature of the H. I. arc is the combination of luminous gas with a deep crater in which it (the gas) is momentarily confined and thus stabilized in space and emission of light.

The component parts of the high intensity arc are:

1. ARC STREAM—The violet stream of carbon gas extending from the negative to within several mm. of the plane of the crater.

2. CRATER GAS—The light giving gas contained within and adjacent to the crater on the end of the positive electrode.

3. FLAME—The jet of gas formed by the combining of the gas streams from the negative and from the crater.

Proper Position of Carbon

In Figures 1 and 2 are shown the proper positions of carbons for different currents. It will be found that a different condition exists when a comparatively high current is used, than when a range of from 80 to 100 amperes is the case.

As shown in Figure 1 a high current density in the negative carbon produces the blue tongue shown at 1, which can be used to advantage if positioned as shown. Figure 2 does not show this tongue as it is in the lower range. Explanation of the numbers is as follows: 1, negative tongue; 2, positive gaseous ball; 3, negative flame, and 4, positive tail flame.

For lower currents the positive carbon will not project as far into the negative flame, or may even be out of it with satisfactory results. The operator should not use other carbons or combinations than those above mentioned and expect the operation of the lamp to be satisfactory. The lamps are designed to feed properly within these ranges.

Light Used	Beam Candle Power Spot	Flood
25 amp. plain carbon arc	80,000 C. P.	11,000 C. P.
50 amp. H. I. arc	750,000 C. P.	25,000 C. P.
70 amp. H. I. arc	950,000 C. P.	35,000 C. P.
400 Watt 115V Mazda	13,000 C. P.	5,000 C. P.
1000 Watt 115V Mazda	47,000 C. P.	6,000 C. P.

Carbons

Two sizes of electrodes are used—these vary with the different amp. lamps used. (Studio lamps all burn at 110v).

These sizes are standard national carbon and by many tests have proven the most efficient.

Amps	Kind	Diam. Pos.	Diam. Neg.	Coating	Type of Arc
25	spot	½	5-16 x 6	orotip	carbon
35	twin-arc	½ x 12	½ x12	none	carbon
35	spot	½	5-12 x 6	orotip	carbon
70	spot	¾ x 6	11-32 x 6	orotip	carbon
80	rotary	½ x 12	⅜ x 9	orotip	H. I.
100	rotary	13-6-10 mm	7-16 x 9	orotip	H. I.
120	spot	1x6	½ x 6	orotip	carbon
135	rotary	16 mm x 20	7-16 x 10	copper or none	H. I.
150	sun-arc	16 mm x 20	7-16 x 10	copper or none	H. I.

The shell of the positive is very hard and brittle and requires care in handling; the Brinell tests show that they are hard as mild steel. The core is heavily loaded with fluorides of Cerium and Thorium. These salts are used because of their selective radiation and under electrical conditions are extremely effective light radiators.

The core of the negative is of soft carbon and the size considerably smaller than that of the positive, and for studio use is coated with either copper or an alloy to prevent penciling, and makes it a better conductor of current. The carbon gas generated is given off at a high velocity. This is a vital feature, for the proper maintenance of the arc depends upon the strength and stability of the stream of carbon gas to prevent flickers. Care must be taken in adjusting the electrodes of the arc because the light source is the small volume of gas contained within the crater; the light is dim or bright, according as the crater is full or empty; the steadiness of the light depends on the freedom from turmoil in the gas. The crater gas has the highest brilliancy. The flame is next, being composed in part of crater gas. The arc stream is the lowest, being identical with the arc stream from pure carbon electrodes. In comparing the H. I. arc with plain carbon and incandescent lighting, the H. I. arc is without peer and almost without competition, as is seen by the following test:

H. I. arc B. C. P. 850 per sq. mm. of crater surface.

Plain carbon arc B. C. P. 135 per sq. mm. of crater surface.

Tungsten crimped ribbon filament B. C. P. 35 per sq. mm. of crater surface.

The following test is conclusive proof in itself that the H. I. arc is here to stay with proper and careful operation.

(D. C. is used in this test because A. C. gives a much lower beam candle power and is subjected to fluctuation and flickering).

In using a 24-inch mirror behind a 150 amp. arc the beam candle power is approximately 150,000,000. A 60-inch mirror develops 725,000,000 beam candle power. It is theoretically possible to boost this to over a billion and work is being done at the present time in re-designing the mirrors. All studio lighting equipment in spot lights is through condensers, which may decrease or increase the beam candle power, depending upon the accuracy and clearness of the lens.

In conclusion it is my thought to bring to your attention the relative beam candle power per ampere between incandescent lights and carbon arcs.

P. C. carbon arc 3,200 B. C. P. per amp.

H. I. arc 15,000 B. C. P. per amp.

Incandescent lamp 4,700 B. C. P. per amp.

Therefore, we find, that a 3,000 watt incandescent spot pulled down hot gives you a beam candle power of 131,000. An 80 amp rotary spot at flood gives you 40,000 B. C. P., and pulled down hot approximately 1,200,000 B. C. P. A 20 amp plain carbon spot at flood gives you 52,800 B. C. P. and on spot 384,000 B. C. P.

If you are looking for the nearest substitute for noon-sunlight and a maximum beam candle power per lamp we should think that the 80 amp. rotary spot, the 24-inch sun arc with 2,250,000 beam candle power on the candle power of 144,000 should be the light that you would use.

—o—

THE S. M. P. E.

By HERFORD TYNES COWLING

The basis of modern business is manufacture controlled by scientific research and sound engineering practice. Experience has shown that no business can create all its own technical knowledge but must co-operate and exchange ideas with allied organizations. This vital interchange can be secured most easily by membership in the appropriate engineering society.

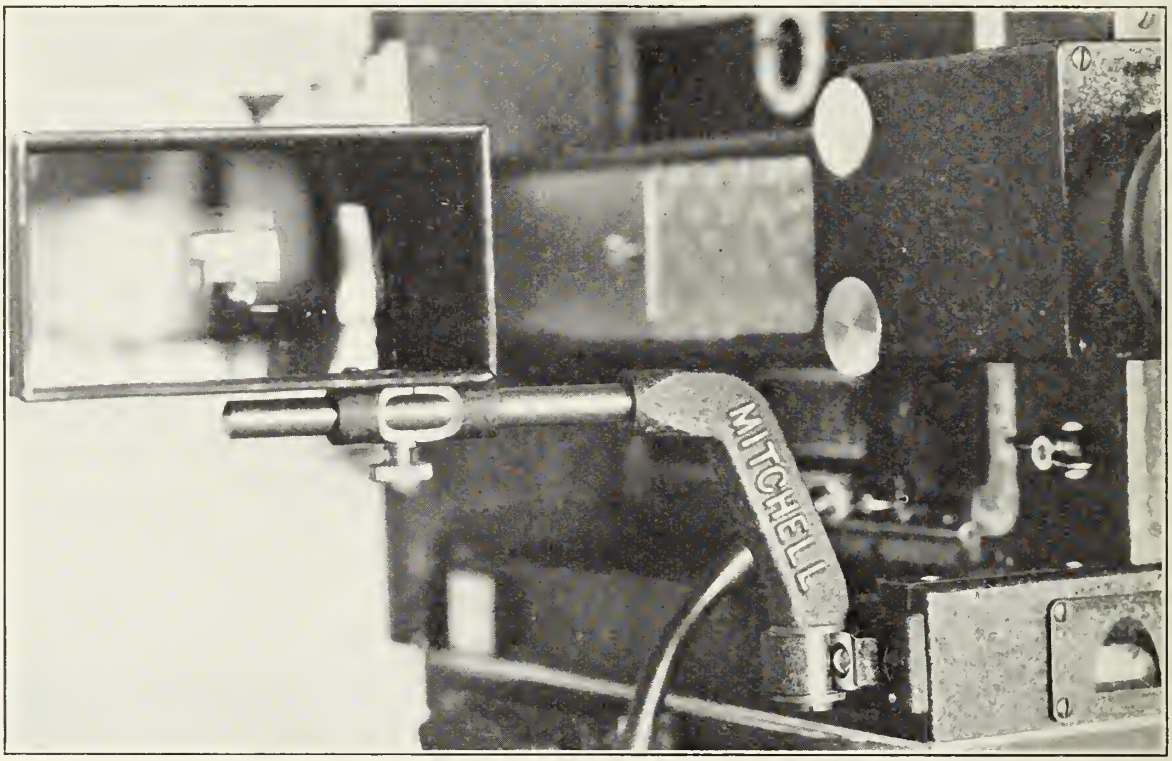
The motion picture industry may claim that more sciences are involved in making its products than contribute to any other manufacture. Consequently, the motion picture technician has been forced to join a number of scientific societies or else remain sadly behind the times. To remedy this condition by guiding all the diverse material with one channel, the Society of Motion Picture Engineers was formed in 1916. In the words of its constitution the society saith: "The advancement in the theory and practice of motion picture engineering and the allied arts; the standardization of the mechanisms and practices employed therein, and the maintenance of a high professional standing among its members."

That this object has been happily realized is apparent from its large and growing membership, and from its published Transactions, which present a library of motion picture science unrivalled in completeness.

The society is composed of two classes of members, "Active" and "Associate," drawn from the best technical personnel of studios, factories, and research laboratories throughout the world. The society's

(Concluded on Page 24)

New Mitchell View Finder Support



In line with the policy of the Mitchell Camera Corporation of constantly developing new devices and attachments as the need requires, they have designed and are building a View Finder Support for the rear of their Erect Image View Finder.

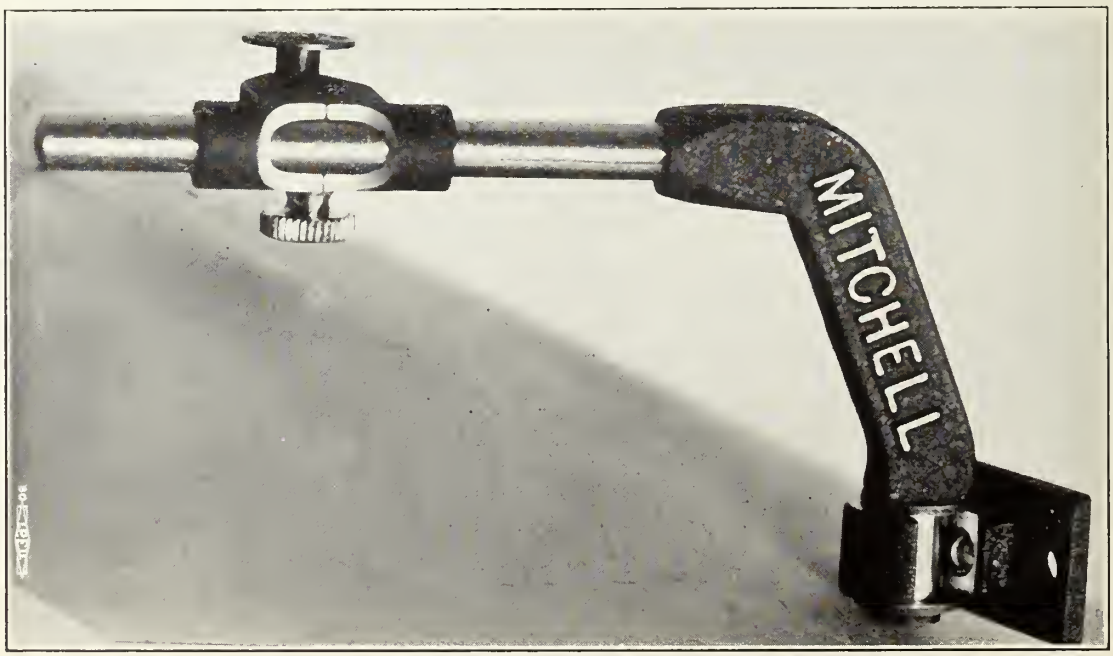
On account of the close quarters the cameraman is forced to work in, the present day sound booths, it frequently happens that the finder is jammed while in position, thereby throwing it out of line and making the registration of the mattes incorrect.

A place is provided for a footage scale, enabling the operator to instantly bring the finder back to a positive position. This scale is at the rear, in plain sight, and may be noted on the accompanying cut.

In removing the finder from the camera, or in swinging the finder away from the camera while opening the camera door, a slight pull at the base of the support will release it from the camera, where it is held in place by a ball and socket arrangement.

While the camera door is opened to load, or to inspect, the support may be released at the base, thereby never disturbing the set position of the finder, and it will always be brought back to the same exact position.

The Mitchell Camera Corporation is in position to make immediate deliveries of this support at this time, at a very moderate price.



ACTUAL SIZE OF SUPPORT

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		CAMERAMAN
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"Coquette"	United Artists	Karl Struss
"The Iron Mask"	United Artists	Henry Sharp
"Bulldog Drummond"	United Artists	George Barnes
"The Cocoanuts"	Paramount	George Folsey
"Studio Murder Mystery"	Paramount	Victor Milner
"Bridge of San Luis Rey"	Metro-Goldwyn-Mayer	Merritt Gerstead
"Canary Murder Case"	Paramount	Harry Fishbeck
"Winged Horseman"	Paramount	Harry Newman
"Trial of Mary Dugan"	Metro-Goldwyn-Mayer	Wm. Daniels
"East Is East"	Metro-Goldwyn-Mayer	Percy Hilburn
"The Leatherneck"	Pathe	John Mescall
"Madam X"	Metro-Goldwyn-Mayer	Arthur Reed
"Modern Maidens"	Metro-Goldwyn-Mayer	Oliver Marsh
"The Rainbow Man"	Sono Art	Jack Mackenzie
"The Wheel of Life"	Paramount	E. Cronjager
"Innocents of Paris"	Paramount	C. Lang

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Horning In On Horn

A Letter fom CLYDE DE VINNA *in Darkest Africa*

Business Representative Howard Hurd of Local 659 has just received a letter from Brother Clyde De Vinna, written from Nairobi, Kenya Colony, Africa, excerpts from which are herewith presented to the brethren. Brother De Vinna and his associates are on location in Africa filming "Trader Horn," for Paramount:

April 25, 1929.

We've been galivanting around pretty much all over the country looking for likely spots for old man Horn to do his stuff, and they aren't so easy to find. As a matter of fact, "darkest Africa" is rapidly becoming settled up, and everywhere are farms and plantations. Only in the outlying districts, accessible by rather extended auto trips, is any "wild" country. * * * Just at present we're on one of those funny English trains hopping along in the general direction of Nairobi, having been on a week's trip around the Lake Victoria country. Found a few likely spots, but they're rather scattered, and will mean considerable traveling during the course of the picture. * * * The rainy season has just begun which, of course, is a great help. You should see some of these "roads" when they get about an hour's steady rain on them! The great majority of the soil in the country is red, sort of volcanic, but now and again they have what they call "black cotton soil," and when it gets wet there's nearly no bottom to it, and hitting a stretch of that stuff in the rain means that you're more liable than not to stay right there.

Haven't been able to do much with the radio set, either. * * * Lake Victoria is some puddle, second largest lake in the world, as a matter of fact, with nearly 28,000 square miles of water. Inhabited mostly by crocodile and tse-tse fly. We found a small lake a few miles west of Victoria, called Lake Navagaba, however, which has some promise as a location. Will also be going up into the Nile country, about 300 miles from civilization—also over into the Congo country, about 250 miles northwest of Kampala. That's in Belgian territory, but the rest of it will be in British.

The lab is located in Nairobi, about the geographical center of the scenes of our operations generally and in the only spot that would fit, so far as physical conditions are concerned. Nairobi is nearly 6,000 feet above sea level, and the climate is fine. Fred Meeks is doing his stuff in great shape, and judging from the appearance of tests already gone through, I should say that if we don't have a swell looking picture, it won't be Fred's fault. * * * The water supply isn't too good in Nairobi, but Fred has doped it up with chemicals until he's getting a beautifully clean and even negative . Mighty glad to have him along.

The rest of the gang arrive in a few days, and we are more than anxious, naturally, to get all the dope from them. * * * Mail is very infrequent down here, and more than welcome, so for the love of Pete get busy and let us hear from the boys once in a while. * * *

We go to Mombasa in a couple of days to meet the gang. That's down on the coast and hotter'n the hinges, and I'm very much afraid we're going to have to do some of our river stuff down there. Other locations are near Nairobi, some 400 miles by rail from Mombasa, and others are, as I mentioned, in the Lake Victoria country, 500 miles north of Nairobi, and still others as far as 300 miles north and west of the lake. * * * It just happens that in the parts of the country where the locations are suitable, the natives are very uninteresting so we will have to find what we can of the more savage looking birds and transport them to spots selected. * * * Many thanks for sending along **The International Photographer**—very interesting to us to get all the fresh news.

Please give my very best regards to all the gang, and tell 'em all to write.

Sincerely,

CLYDE.

P. S.—Our address, M-G-M Company, P. O. Box 981, Nairobi, British East Africa.

May 6th—

To Ira Hoke

* * * The rest of the gang got in last week—all looking and feeling very well. Maybe you think we weren't glad to see them Honestly, I haven't done any talking in ages, compared to the talkfest that ensued after our meeting. There were so many things to be asked—so many things to be told—I suspect it sounded like a meeting of the Ladies' Aid to the outsiders. They seemed to have had a good trip, but of course were glad to get off the boat. They had been on there eighteen days from Genoa, and suspect were about getting fed up with it.

Nogle stayed in Mombasa to photograph a big government auction sale of ivory which comes off tomorrow (18,000 pounds of confiscated tusks), and will jiin the gang at Nairobi immediately. He is coming out of his trouble O. K. I presume you know of the rather serious operation he had on his face about a month before they left—caused by a tooth. He was laid up with it for three weeks, but has picked most of it up again, and looks very well.

Nine of us—Van Dyke, Red Golden, Bob Roberts, McAfee, Morgan (prop shop), Cornwall (electrician), two hunters and myself are going out on a scouting trip. Cornwall will stay at Kampala, which is our advance base, and take care of the electrical gear when it comes along and he will be joined later by Riley, the other electrician. Riley had a little trouble with a tooth, too, and had it yanked out in Nairobi yesterday. The rest of us will shove along into the Congo and Upper Nile country to pick out a couple of village sites, to be joined later by the rest of the gang. We're going with full "safari"—which is the local term for camping trip. Have two "hunters," as they call guides here, one of whom is recognized as the best shot in Africa. Full crew of cooks and servants, or "boys," as they are called. Each of the cameramen has a personal boy to look after his tent, etc., as well as a gun-bearer, who stays right with us all the time carrying the cannon, and besides that we are each packing a big Colt. Not that it's particularly dangerous, but—never can tell.

Communication with headquarters at Nairobi will be maintained by wireless without any trouble, as we will never be further away than 1,000 miles or so. I haven't had a real chance to get through to the U. S. with the set yet. As you know, it's approximately 14,000 miles, which is more than enough to taxe the capacity of a set much larger than the one I have. However, given a good setup, and decent conditions, I feel that we can get through quite frequently. Just now, the rainy season is on, and you never heard such static in your life! The Llewellyn Iron Works is a tomb alongside it. Will try and send you a few stills as soon as we get straighten edoadf.—shrdlushrdlu get straightened out—everything so far has been a hurry and bustle, as you can well imagine. Fred Meeks and DeCenco, his understudy, have a first class lab. going in Nairobi, much to the amazement of a number of local "experts" who forecasted no end of trouble, if not entire disappointment. Fred is turning out negative that would put many a Hollywood lab. man to lots of grief trying to equal—and all in all, his end of the trip seems an assured success. We're all out to make the greatest picture ever shot—so stand by for a big treat when we finally get back to Hollywood. I'm intensely proud of my gang and of my share in the project—I don't think it's possible to get together a greater bunch of fellows, or a gang that knows their stuff as do these boys.

The boys got a kick out of getting the second number of **The International Photographer** after they got here—they arrived a week or so before the gang. She's a peppy journal all right, Ira, keep her coming! Liked the story very much indeed.

Let us hear from any of you boys



Mrs. Louise Lincoln

A great industrial executive has recently said that there should be a woman in every business office—as a stabilizer and a deterrent. Well, there's one in the office of Local 659 and she is a member of the Union, too. Mrs. Louise Lincoln, as office manager and auditor, is a veritable three-in-one business woman, who by her ability and energy has won the respect of the entire membership.

who care to write—mails are very infrequent, and letters are scare—so let 'em come.

Best regards to Howard, and the rest of the gang.

Fraternally and sincerely yours,

CLYDE DE VINNA.

EDGAR LYONS
NOW PHOTOGRAPHING
VITAPHONE PRODUCTIONS
WARNER BROS. STUDIO

WARNER NICHOLS CROSBY
HE. 1128
SANTA MONICA 51450

WITH COMPLIMENTS
Earl (Curly) Metz
Assistant Cameraman

The Camera Battery

An S. M. P. E. Transaction—N. Y. Convention, 1929.

By KARL STRUSS, Local 659

In photographing dialogue or talkie pictures, there are various methods in use, depending mostly on the type of story being filmed. In this article we will discuss only the method that was used in picturizing "Coquette," on which four cameras were used for most of the sequences.

Previous to the actual photographing, two weeks were spent in rehearsals of all the characters having speaking parts, and at the last rehearsal, the camera positions were determined with the cooperation of the director, Sam Taylor.

The focal length of the lens that each camera was to use was arranged at that time, and notes were made of exactly what was required of each cameraman. The four cameramen were present at the final rehearsals and so were able to follow, with their finders, the complete action of the story as it progressed.

The action was fairly continuous and the scenes ran an average of three or four hundred feet each. Whenever the locale or action called for a change, new camera set-ups were mapped out. In working out a line-up, the first camera considered was the long-shot camera, equipped with a lens of 35mm focal length, which obtained a record of the whole action from beginning to end, from the most advantageous position.

The reason for using the 35mm lens instead of a 40mm or 50mm lens for the full figure shot, was to enable the other cameras with the longer focal length lenses, to work closer to the characters, and so, not have to use lenses of say, six, eight and twelve inch focus, with their shallow depth of focus necessitating very accurate measurement of the distance to the characters.

The other cameras using lenses of two, three and four inch focal lengths were then placed to get the best possible view of certain portion of the scene closer up. All during "Coquette," the longest focal length lens used was the four inch, which at an average distance of about twelve feet gave a fair size close-up. Occasionally there were times when closer silent shots were made, which expressed reactions to the dialogue.

Each line up required different combinations of lenses from various positions, depending entirely on the action and the positions and number of characters in the scene. Sometimes, the cameramen changed their lenses from one focal length to another in the course of a scene in order to adapt their set up to some change in the grouping of the chracters.

These changes, of course, were always made at definite times in the action or on certain cues, while the full scene was being covered by some other camera. Each camera was so placed, that when it was used, the best angle of the action was obtained, and the characters were lighted accordingly.

The advantages of photographing with more than two cameras at the same time are numerous. The actor's action can build up to a climax to much better advantage; the lighting can be arranged to cover the action for all the cameras; the photography can be more uniform and a more even negative secured; and the sound track, likewise, will be of better quality and of less variable tone. The scene as then photographed is a completed picture.

To facilitate and speed the actual photographing, the chief cinematographer on "Coquette" supervised the lighting for all the cameras; for, knowing the problems, set-ups, backgrounds and lenses of each camera, he could more quickly judge and decide what was the best advantage of all, and he was not hampered by having to give his time to the detailed attention required to manipulate a camera. Remaining outside of the booths in this way is of considerable advantage to the director, as it enable him to have first hand and immediate information on any photographic problem that may arise from time to time.

The longest scene photographed in "Coquette" was the complete scene of the trial, which recorded the testimony of Miss Pickford, and on this, six cameras were used; the actual footage being nine hundred ninety feet for each camera, the duration of the scene taking eleven minutes.

This was quite a test for all the actors to know their parts letter perfect, as well as for the cameras to follow the action without a false move, and it speaks well for the organization and cooperation everyone gave.

By being able to photograph all the action simultaneously with six cameras, and from six different viewpoints, it was possible to complete this scene, originally scheduled to take five days, in the short space of two days and without any rush.

The diagram and illustration accompanying the paper, showing objects and areas covered by the various focal length lenses did not arrive in time for publication.

—o—

THE STORK REPORTS

Mr. and Mrs. Teddy Tetzlaff are the proud parents of a fine boy, born June 18, 1929. The entire Local and their families extend congratulations to the happy parents.

—o—

The more you know of the good that is done by demanding the union label, card and button, the more insistent you will become for them.

—o—

Help the Union Shop by purchasing its products.

Stills Still Move the Movies

BY

FREDERIC COLBURN CLARKE

"Cut!"

The director, cameraman and actors relax, the lights go out, and the scene is over. Now out of the obscurity comes an unobtrusive person, carrying another type of camera.

"Still, please," he says, apologetically.

"Gosh, you hear again!"—from the cameraman.

"Get that cheesebox out of here!"—from the director.

The actors have vanished, electricians have already shifted the lights for another scene.

"But how about a still, stir; this was an important scene?"

"Oh, make it after lunch!"

"All right, sir," and back to obscurity goes the still man, to discover too late that after lunch the company is to go on location and another golden opportunity is lost forever. To him alone? Nay, to his employers and to the production, also.

This is a concrete example familiar to every still man, for until recently, he has been an object of derision and opprobrium to every one on the set—until he brings forth his finished pictures. Then he hears remarks:

"Oh, gimme!"

"Say, don't I look awful!"

"That's a rotten composition, with the star off on the side that way!"

"Can't you make me any better looking than that?"

"Whoever told you you could make photographs?"

"You ought to wear glasses—that's way out of focus!"

"Guess your camera moved or something—why don't you get a decent lens?"

"Oh, well, life's just one d—photograph after another!"

The still man slinks off, but later, after the production is finished, from producer, director, stars, and all down the line comes the plaintive—or otherwise, usually—wail:

"Why in hell didn't you get more stills?"

The still man can only photograph what he sees, consequently if the actors are bored and uninterested, naturally his pictures will be mediocre, and if published, will call violent protests from said players, who, if they are high priced and temperamental, can have the still man fired—it has been done!

What a difference it would make in the resulting photographs, were the actors to be gracious and obliging, as many of them are, and what a joy to the still man to have an appreciative subject! Many a weary waiting hour is forgotten, and the day counted well spent, that finds the still man gloating over negatives that are well exposed, well developed and printed and, above all, graced with the hearty co-operation of the leading players.

[*Frederic Colburn Clarke, who will soon contribute a front cover to THE INTERNATIONAL PHOTOGRAPHER, had an enviable reputation as an artist in New York, his pen and ink illustrations ranking with the works of Abbey, Remington, Pyle, and other contemporary craftsmen.*

With the advent of general improvement in reproductive processes, it was inevitable that photography should attract his attention as another superlative phase of illustration. After two years intensive study at the New York Camera Club, he was employed for seven years by the New York Herald, also contributing to the pages of Scribner, Harper, Century, Town and Country, Collier's, Delineator, and many periodicals.

From the Herald Brother Clarke took his newspaper experience to the Kalem Company, and toured the South with a moving picture camera, choosing his own subjects for short features.

Preferring the still camera work, he took charge of that department at the Goldwyn Studio in Fort Lee, and photographed Mary Garden's introduction to the movies in "Thais." Coming to Hollywood, he took a similar position with the old Metro Studio, where he not only used the camera, but developed and printed the negatives as well.

After two years of this arduous occupation, Brother Clarke began free lancing and for the past ten years has been an integral part of some of the greatest pictures produced in Hollywood. Needless to say, his training as an artist and illustrator imparts to his photographs a quality comparable to paintings—his composition and balance never at fault—a quality greatly prized by editors, who are ever seeking photographs of merit.—Editor's Note.]

Perhaps the still man is conscientious, and has leanings towards the artistic. His orders, through the insistence of the publicity department, are: "Get 'em sharp," so he, perforce, is constrained to focus accurately and create a negative that will give prints showing with meticulous exactitude every infinitesimal molecule of the leading lady's features, usually to the tune of "Oh, hurry up!"

He may spend days of careful study of said leading lady's best angles, but—"Get 'em sharp!" and "Oh, hurry up!" brings to naught all his good work.

Then the producer sends aforementioned leading lady to some downtown studio, with all her costumes, where she spends the day, has fifty or more poses made and the still man sees the results emblazoned on full pages of the illustrated papers, with the downtown photographer's name prominent on each—all soft focus.

Does the still man ever get credit on a published picture? He does NOT.

Someone in the laboratory develops the still man's negatives; someone else makes the prints; still another handles them after washing and puts them on tins to obtain the glossy lustre desired by the publicity department—three chances, even with all the still man's care in photography, for disaster.

Perhaps the man who develops is in a hurry to go home, and jerks out the negatives too soon. Possibly the printer makes the prints from them much too dark—as best he can—and if the tins are dirty, where does the still man get off?

He gets off the payroll and another comes along, with the same result, sooner or later, usually sooner. These were a few incidents in the life of a still man—prior to May 20th, in the year of our Lord, 1929.

Now the still man is accorded a trifle more of respect, due to altered conditions. The producers are realizing that on his efforts depend largely the advertising and publicity necessary to the exploiting of the moving picture film. Magazines, newspapers, posters, bill boards, and exchanges, all clamor for stills, good stills, with which to exploit the motion picture. Consequently, the still man is beginning to receive recognition. He is accorded more deference, given more time and slowly, but surely, the class and quality of his work is improving, though much is yet to be accomplished before the millennium can even be approximately reached and his path strewn with roses.

But there are compensations for the still man. On location he has opportunities to practice on landscape photography, or seascapes, or perhaps a mountain scene, that, for a little extra trouble, will be well worth the care expended in taking.

If not a financial asset such pictures will at least give pleasure to a host of friends and they often prove to be of exhibition merit.

But for such scenes the eye must be trained to work with the hand and the elements of art seriously considered. It is not sufficient to blindly snap the shutter. The time of day, the evanescent atmosphere and the composition of the whole must be thoughtfully analyzed, if the results are to achieve an artistic triumph.

In such work, also, questions of a technical nature obtrude. Outdoor photograhpy is very different from that in the studio where lights are already adjusted and exposure of the negative a foregone conclusion. In nature photography, the still man must know his medium, and its limitations, before he can even approximate the scene he views.

Things never dreamed of in the days of the wet plate are, with modern facilities, easily accomplished, but even today it is easy to make mistakes and there is no golden road to fortune for the still man.

NEW COLOR MOODS

FOR THE SCREEN

A spectrum of sixteen delicate atmospheric colors, keyed to the moods of the screen, in the new series of EASTMAN

SONOCHROME

TINTED POSITIVE FILMS FOR SOUND PICTURES

NEW COLOR

with

EASTMAN SONO

ROSE DOREE—A rose pink that quickens the respiration. The tint of passionate love, excitement, abandon, fête days, carnivals, heavily sensuous surroundings.

PEACHBLOW—*Allegretto vivace.* A tint for brief, joyous moments, buoying up scenes of light, sensuous content. The spirit of coquetry. An excellent tint for close-ups.

AFTERGLOW—Less radiant than Peachblow, yet warm and stimulating. Café, banquet scenes, gardens, sunsets, late autumn.

FIRELIGHT—A cheerful orange tint—in interiors suggestive of warmth, intimacy, comfort. A mellow autumnal light.

CANDLEFLAME—In the middle tempos, but blending happily with all active moods. For general use in interiors. For exteriors morning and afternoon, with but little sky area.

SUNSHINE—The generous brilliancy of mid-day sunlight. Of use where the light of the sun plays prominently in fixing the locale or the mood . . . sunlight streaming through windows, Mexican patios, the desert.

VERDANTE—In the *larghetto* range. Refreshing. The sunny green of vegetation in spring and early summer. Simply furnished interiors.

AQUAGREEN—Emotionally cool, soothing, relaxing. Especially suited to water scenes outside the tropics. One of the wettest colors imaginable.

A Complete Gamut of Colors

SIXTEEN expressive tints — new to the screen, embracing the entire color spectrum, rich and varied in their emotional effects — comprise the new series of Eastman tinted base films known as Sonochrome.

Eastman Sonochrome provides a relief from the black and white of the present sound film and a wider range of expressive hues than the motion picture ever before possessed!

In hue and atmospheric quality Eastman Sonochrome can closely simulate the actual lighting of any exterior or interior scene. Lighting of realistic color content is a primary emotional source to which the motion picture never before has had such free access.

Sonochrome colors have definite affective values. Some excite, some tranquilize, some repress. Properly used, they enhance the moods of the screen and aid the powers of reproductive imagination in the observer, without making a distinct impression on the consciousness.

In Sonochrome, the maker of motion pictures will find an efficient and highly refined instrument for achieving dramatic effects, and the audience a new emotional experience.

MOODS FOR THE SCREEN

CHROME FILM

The First for Sound Pictures

Previous attempts to use color on sound film have resulted in cutting off the light that excites the photoelectric cell, so interfering with the reproduction of sound. With the new Sonochrome tints this difficulty has been overcome, for they are so adjusted as to position in the spectrum that they do not blind the photoelectric eye.

The light to which the photoelectric cell responds passes freely through Sonochrome film, and the response is uniform over the entire gamut of tints.

For this reason Sonochrome tints, including the hueless argent substitute for clear positive, may be used in any sequence, permitting absolute freedom in the shifting of moods, without affecting the sound.

The Eastman Sonochrome tinted films are available at no greater cost than the regular clear base positive film.

Eastman Kodak Company, Rochester, N. Y., will gladly send you further information about

EASTMAN SONOCHROME FILM

TURQUOISE—With the liquid characteristics of Aquagreen, but cooler . . . the Mediterranean, the cool of dawn, bright moonlight.

AZURE—The tint of reserve and distance. In exteriors spacious, atmospheric—the blue of tropical skies. In interiors cold, formal, repressive.

NOCTURNE—For night effects, murky interiors. Maximum repression. The color mood of sadness, defeated expectation, dark intrigue, the underworld.

PURPLEHAZE—Rising somewhat in pitch from Nocturne. For dim interiors and outdoor settings obscured with haze. Languorous, dreamy, narcotic.

FLEUR DE LIS—*Tempo di marcia pomposo.* The time-honored hue of the ceremonial, the ritualistic. Pompous, solemn, stately. The purple of royalty.

AMARANTH—A less austere purple than Fleur de lis. Suggestive of gentility, aristocracy. Heightening the elegance and luxury of certain interiors. Balcony scenes at night illuminated from within.

CAPRICE—In the range of rapid tempos. An audacious magenta. The mood of fickleness, impulsive action, rash adventure.

INFERNO—*Agitato.* Intensely stirring with strong sounds and movements . . . fiery revolt, riot, conflagration, disaster, unrestrained passion.

ARGENT—A silvery hueless tone, less harsh than that of ordinary black and white positive. Of general utility for all untinted scenes.

They warm love, inflame passion, heighten joy, strengthen courage, deepen sadness . . . . .

FOR the first time, all the serviceable associations of color tones are brought to the aid of the sound picture in the new Eastman Sonochrome Films, a chromatic series of sound positives.

Sonochrome has sixteen color moods, keyed so that a smooth transition is always possible from one to another, or back to the basic argent tone, without perceptible change in sound level.

Pictures in Sonochrome tints have a variety and a sustained interest that can not be achieved with black and white positive alone.

The most imaginative productions of the year will be screened in Sonochrome.

EASTMAN SONOCHROME

A PRODUCT OF THE COLOR LABORATORY OF THE

EASTMAN KODAK COMPANY

THE PAGAN

By Louis W. Physioc

This paper has not been committed to the policy of re-reviewing pictures, but now and then something is presented that justifies a suspension of the strictest conservatism. We also excuse the present comments by acknowledging that we are very free in condemning the bad pictures, but careless about praising the good. And what is worse, our prejudice is often developed to the point where we judge a few bad ones from certain quarters with the old saying, "Can anything good come out of Nazareth?" None the less common is the habit of being stingy with our praise where it is merited. "I admit it, though the words blister my tongue," sort of spirit. This spirit was reflected in certain remarks overheard among the crowds that milled from the showing of "The Pagan."



"I wonder if they realize that they have a real picture," said one, who spoke as having authority.

"Yes," answered his companion, "it is a real picture but why call it an all talking picture?" Which latter expression suggests the substance of our comment.

Mr. Vandyke has produced a charming picture. The story is simple, sweet, clean and wholesome, and for a South Sea Island idea, plausible and logical. Vandyke might have saved his concern a lot of money by placing some one before a michrophone to **relate** it all in lengthy, tedious dialogue, but he preferred to transport us to the island and show it in moving scenes of varied interests. He dipped his brush here and there, upon his palet, and used only what he needed,—nothing more. nothing less,—and mixed them with skill and artistry. His simple, but forceful cast stood out in dramatic stereoscopy, from a background of native life and settings. There was no straining after superficial production values. It was simple beauty, and Clyde DeVinna, the photographer, is just as surely an artist as if he wore a smock and a Tamoshanter. Donald Crisp was consummate, and we were almost glad that the sharks ate so tough a mortal. Novarro was delightful, the little girl, Dorothy Janis, was lovable, and we compassionated little Adoree in her sacrificial devotion. The propinquity of male and female was suggested in a sweet, pure love story, and broke through, with a crash, the sordid movie formula of "sex appeal."

We read the subtitles without any conscious need of spoken dialogue, and listened to the extraneous sound accompaniment as a perfectly natural adjunct, and the music was pleasing and unobtrusive — we went away humming the plaintive melody that knitted together the elements of the story.

But this was not a talking picture, it merely had a sound accompaniment. It is questionable whether it could have been made an "all talkie," and it is this fact that elicits our editorial comment.

The word appears to have gone forth that there shall be no more silent pictures, which inspires the question, should such pictures as "The Pagan" pass? **Should** they pass as long as they can claim the patronage that this one seems to enjoy? We speculate as to whether the enthusiasm, among producers, for the dialogue pictures, is not developing more into a desire to feature this wonderful instrument itself, rather than employing it as a valuable addition to tools of the craft.

These considerations lead us to hope for the time when the extravagant exploitation of the mere instrument will be succeeded by a policy that will place it in the hands of artists capable of judging its abuse as well as its use.

However we see no reason to worry, for we have seen many instances where a valuable device is at first a toy, and when the novelty wears away, it becomes a powerful implement of production.

ROY DAVIDGE FILM LABORATORIES

An Exclusive "Daily" Laboratory

QUALITY AND SERVICE

6701-6715 SANTA MONICA BOULEVARD

HOllywood 1944



This beautiful building, of Class A, fireproof construction throughout, located at 6656 Santa Monica Blvd., will eventually be four stories in height, as the foundations, supports and walls have been made to accommodate an additional two stories. It has a flavor of ancient Egyptian architecture, is 50 feet wide, 115 feet deep and has a 100% sprinkler system. The walls and ceilings are entirely finished in Texcrete and the woodwork is of selected Southern Gum with trim. The building was designed and constructed by H. A. McMurphy, of Hollywood. The lower floor is devoted to film storage and clerical offices and a large reception hall and lobby. The second floor is given over to the executive offices, an attractive lounge and the research department.

Borax Developer Characteristics

BY

H. W. MOYSE *and* D. R. WHITE

Spring Convention, 1929

(Abstract of Borax Developer paper read by Mr. Moyse at S. M. P. E. This abstract specially drawn for THE INTERNATIONAL PHOTOGRAPHER).

The results of some recent tests of borax developers are here briefly presented.

Method of Test

Strips of film exposed back of a sector wheel giving, on a time scale, factor two steps between successive exposures were developed for various times in the developer being tested. The development was carried on in a flat tray rocked during the course of the development under such conditions that there was great opportunity for aerial fog to be produced if the edveloper tended to produce such fog. The densities so produced were read to give the final density—time of exposure—time of development data used in comparing the characteristics of the developers.

Developers Studied

Two main series of tests were conducted. In each series a basic formula was chosen and that formula varied over a wide range of combinations of the constituents. The formulas are given below:

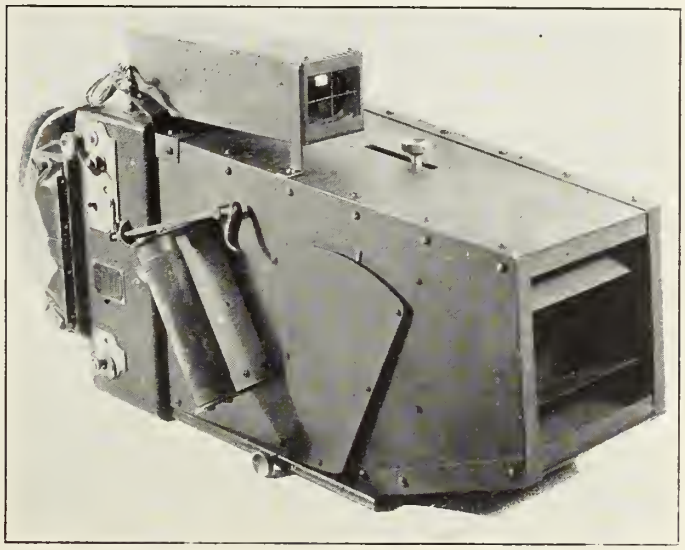
Substance	1st Series	2nd Series
Sodium Sulfite (Anhyd.)	100	75
Metol	2	2.5
Borax	2	5
Hydroquinone	5	0
Potassium Bromide	0	0

Results

The results will be presented here as completely as possible as independent statements of the effect of each component. Such statements alone cannot present all of the information since the change of any one

A New Aerial Camera

[*Brother Walter J. Van Rossem protests that he is no writer and then takes his typewriter in hand and writes me this effusion about the new air camera our friend, Fred Hoefner, of the Cinema Machine Shops, has just completed for him and, by the way, the beautiful front cover page for this issue of* THE INTERNATIONAL PHOTOGRAPHER *was photographed by Brother Van Rossem one nice moonlight night out on the blue Pacific, near Monterey, Calif. Give Sir Walter a camera and a full moon and you may depend upon his artistic soul to produce a masterpiece. The letter follows.*—EDITOR'S NOTE.]



You asked me to write you something about the air camera that Fred Hoeffner built for me. Imagine my embarrassment when I find myself "pen-tied." I'm glad your vocation is writing, not mine. Although the photographic line of endeavor has its drawbacks it still seems to me more desirable. Not being able to create any very highly sensitized word emulsion on this sheet of paper, or better. a word picture of this camera, I will let the enclosed picture on a sensitized paper, I better understand, talk for me. That, coupled with the ffllowing description will seem to explain the camera made necessary by the high price of this kind of equipment.

This camera is built for the purpose of oblique pictures only and won't serve for mapping. There is a device on the left side of the camera, not seen in the picture, that operates the shutter seen in front of the lens—permitting the changing of films or plates and the resetting of the focal plane shutter without replacing the protecting slide after each exposure. The camera was originally an Eastman 5x7 speed graphic taking any of the graflex attachments, cut film magazine, plate magazine, plate holders or roll film adapter. The other refinements and adaptations such as finder, trigger for tripping the shutter, pointer that operates with the focusing device so that a scale of focus may be marked plainly on the side of the camera are all clearly seen in the accompanying cut picture. A screw on top locks the lens at any desired focus so that shooting down or up the weight of the lens will not alter the focus. The strap is more for protection than service, although is of a length that the full weight of the camera may be supported by it in a handy position while manipulating the various devices in connection with re-loading, re-setting the shutter, etc.

Fred Hoeffner is to be complimented upon his workmanship as this "box" was evolved little by little, flights and pictures being made with the incompleted camera as it progressed to insure its adaptability to the taking of oblique air pictures when finished.

Any of the brothers who are interested in this kind of work or camera may inspect it at my place any time. "Show your card."

I don't doubt that this letter needs plenty of editing; that's your business. If it tells you anything and serves your purpose in the Magazine, that's fine. If it doesn't take good pictures, that's my business.

Fraternally,

WALTER J. VAN ROSSEM.

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constituent may affect the condition of any other. However, much can be learned by such attempted separation of effect though it will be necessary to note points where the interrelation of the components is of great importance.

Sulfite

The reducer in a developer must usually be protected from oxidation by the air and sulfite is most frequently used in this role. That does not seem to be its only effect since it is a solvent for silver bromide. About seventeen years ago C. E. K. Mees and C. W. Piper published a paper dealing with this action of the sulfite. Their results indicate that the amount of silver bromide that can be dissolved in a solution of sodium sulfite increases more than proportionally with the sulfite concentration. Our tests indicate that in developers this effect may become of appreciable importance with the high sulfite concentration used at times. Such solvent action, so long as it is not too great may well tend to produce fine grain in the images developed. In any case, however, too great a concentration of sulfite may actually reduce the density developed by a given concentration of reducer. That this is truly a solvent action is indicated by the fact that the amount of silver present in the used developer increased markedly at the same point at which the drop of density occurred. The optimum concentration was found to occur at about 75 g-l. Even a concentration of 100 gms. per liter produced a decrease of density on some film, and in no case did concentrations higher than 75 g-l appear to be of any material aid in increasing developed density.

Borax

The alkalinity of a developer determines largely the activity of the developing agent. Developers of low alkalinity, low pH, being in general the softer and less contrasty of present commercial developers. The use of borax under normal conditions produces such soft developers of low alkalinity, the alkalinity varying with the quantity of borax and also with the concentration of the other constituents notably metol, in the developers here reported. For this reason, and also since the borax appears to have no direct action on the silver bromide, the results of borax variations must be considered directly with variations of the reducing agent.

Reducers

With the low borax concentrations emphasized in the first series of tests, the hydroquinone present in the developer had very little developing action. With metol omitted practically no development was obtained even with the longest developing time used, 16 minutes with agitation. Metol, under the same conditions, but

(Concluded on Page 35)

Cinema Equipment Expands

The amazing development of the talking pictures with their innumerable ramifications, during the last year, has resulted in the institution of many new business organizations for the manufacture and sale of standard and special equipment for the work; and for the increase in capacity and output of established concerns.

In the latter class is the Cinema Equipment Company, headed by Captain Ralph G. Fear, which within the last few weeks has been obliged to seek larger quarters to take care of the enormous increase in business.

From the time of its inception under modest circumstances some time ago, Cinema Equipment has progressed steadily until it now represents an institution of the first magnitude, equipped with the most modern precision machinery and all necessary facilities for the manufacture of such special equipment, the inventions of Captain Fear, as:

Fearless Simplex Ultra-Silent and Ultra-Speed movement for Bell & Howell motion picture cameras; the Fearless Automatic Clutch and trip for both Bell & Howell and Mitchell cameras; the Fearless Friction tripod and the Fearless Simplex Automatic Developing machine.

One of the most important phases of the company's activities is the rebuilding and silencing of standard cameras which were adapted originally for silent films.

Captain Ralph G. Fear has proved himself to be a veritable genius many of whose inventions have long been in use in the leading studios. But with the advent of the talkies, the adaptability and seemingly unlimited capacity of Captain Fear has been strikingly demonstrated and he has come to the front with equipment that has proved indispensable to the producers of the new type of photoplay.

Among other Fearless products is the Fearless Simplex Movement for Motion Picture Cameras. These are now available for Bell & Howell cameras. Pilot pin registration permits noiseless operation at speeds to eight times normal. Simplicity of design, accuracy in construction and the highest grade materials insure silence, reliability and long life. This movement is extremely easy to thread and clean.

The Developing machine is similarly effective. The first example, installed at M-G-M Studios, successfully processed film without a single break from the time it was first threaded, and without weeks of experimental work and changes in construction.

Among other devices are the Fearless Automatic Clutches for Bell & Howell and Mitchell cameras. Their distinct advantage is instantly apparent. They allow instant stopping of camera in the middle of a shot. In a second, the camera may be disconnected from the motor when cranking for the slate. They prevent damage to the camera from the motor drive and also prevent damage to the camera when the motor reverses. They save film at the end of the action by stopping camera instantly. Another advantage is the fact that they are interchangeable from Mitchell to Bell & Howell cameras. Also that they are adaptable to R. C. A. or Western Electric sound installation. They have innumerable other advantages that make them one of the most important accessories to be added to a motion picture camera. As far as is known the Fearless Automatic Clutch is the only safety clutch on the market.

Another device is the Fearless Camera Trip. The trip may be installed in either Bell & Howell or Mitchell cameras. The Fearless Trip, in conjunction with the Fearless Automatic Clutch will instantly stop the camera in the event of a film buckle.



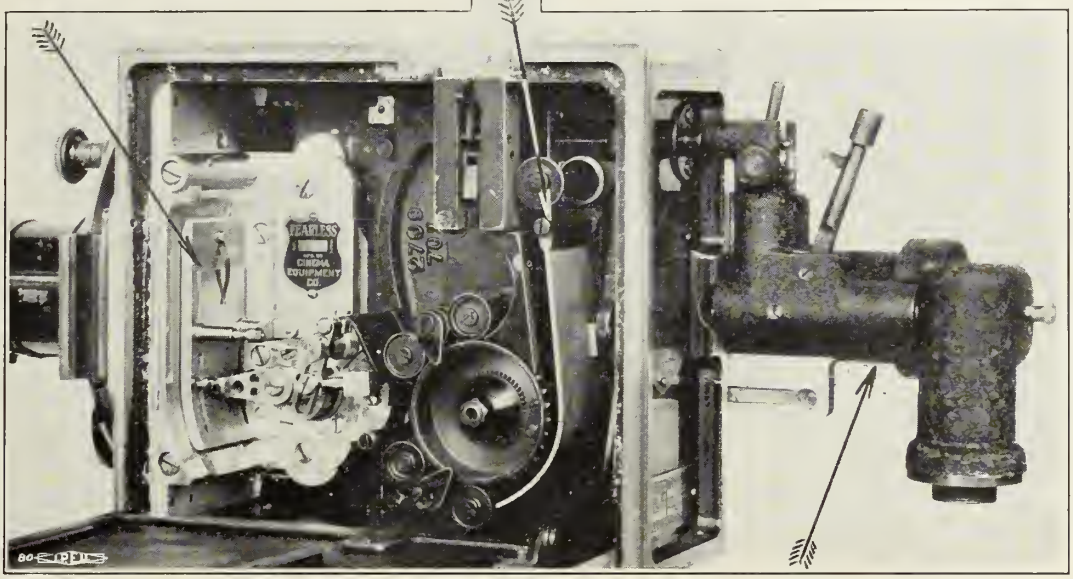
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Lower— A View of the New Fearless Machine Shops

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$60 INSTALLED



FEARLESS AUTOMATIC CLUTCH
$175 INSTALLED

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FEARLESS SIMPLEX PRODUCTS

FEARLESS SIMPLEX MOVEMENT

These are now available for Bell & Howell Cameras.

Quietest movement manufactured.

Pilot pin registration permits speeds to eight times normal.

Easy to thread and clean.

Simplicity of design, accuracy in construction and highest grade materials.

$750 Installed

FEARLESS AUTOMATIC CLUTCH

When Used With Trip

Prevent damage to camera from motor drive—also when motor reverses.

Allow instant stopping camera in middle of shot.

Disconnect camera when cranking for slate.

Save film at end of action by stopping camera instantly.

Interchangeable from Mitchell to Bell & Howell Cameras.

Innumerable other advantages.

$175 Installed

FEARLESS CAMERA TRIP

May be installed in either Bell & Howell or Mitchell.

When used with Fearless Automatic Clutch will instantly stop camera in the event of a film buckle.

This de-clutching and stopping of camera is accomplished in the space of a half dozen frames.

$60 Installed

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ONCE IN A LIFE TIME TO US ALL

This de-clutching and stopping of camera is accomplished in the space of a half dozen frames. The advantage of this needs no elaboration.

An entire building has been taken over by Cinema Equipment Company at 7160 Santa Monica Boulevard, near LaBrea Avenue, and fitted with the very latest machinery, installed in a fine, light and airy structure comprising 7,000 square feet of floor space. Besides the shop, there is a drafting room, a stock room, and several offices. With the increased facilities, the company is now in a position to catch up with its orders and to meet the unprecedented demand for its product, which in its older quarters it was unable to do.

With a large force of skilled mechanics, engineers and draughtsmen under the direction of competent experts heading each department, and with Fear himself constantly adding to the innovations, keeping pace with the new discoveries and developments in the industry, the Cinema Equipment Company is certain to follow the same trend and become one of the largest concerns of its kind in the West.

As Fear points out, it is essential in this field of endeavor, that those supplying the needs of the picture industry in its various departments in this day of change and innovation shall be far-seeign, not only keeping abreast of the changing conditions but reaching beyond. Also it is indicated, only perfection, that is to say absolute accuracy, is admissable, since so much depends upon the slightest of causes.

The Fearless products are all characterized by their precision, accuracy, perfection in detail. They are leading the field and will continue to do so.

THE S. M. P. E.

(Continued from Page 13)

affairs are conducted by the President, Past President, Secretary, Treasurer, and a Board of Governors, which includes the chairman of local sections.

Of the society's main activities the publication of the Transactions makes the most permanent appeal. Many articles appearing in its pages are translated and reprinted in journals of other nationalities.

Various committees collect and present to the society the latest data upon the subject which they are examining. Through the Standards and Nomenclature Committee particularly, the industry is being brought from a condition of unstandardized chaos, to one including well organized and uniform equipment, methods, and technic resulting in a saving to the industry, better pictures, and improved theatre conditions for the public. These committees co-operate closely with the American Engineering Standards Committee as well as with foreign motion picture organizations for the purpose of securing universal interchangeability and standardization of methods and material, and ultimately making for bigger and better business for all concerned.

The society is more than an engineering organization—it is a club. Experience has shown that as much can be accomplished by friendly personal contact as through the interchange of written scientific material. For this personal contact it is necessary to have meetings. In America this is done by holding conventions which are attended by members and guests from all parts of the continent. In other places too far from the New York headquarters, shorter local meetings are held more frequently by sections of the society which are now becoming of great importance. The Hollywood section, in the heart of the American production region, has now been augmented by a London section situated in the center of British activities.

At the time of going to press, the London group, though less than a year old has nearly a hundred members. So valuable does the society deem its international membership roll that the entrance fees have been **reduced to one-half for persons residing outside North America.** It is expected that in a few years there will be groups of members furthering the purpose of the parent society in many localities throughout the world where motion pictures are being made. At the present time membership should hold a special appeal for those living in the Old World, for it will enable them to link their own contributions to the art with those of American workers.

Alvin V. Knechtel
SOUND CAMERAS FOR RENT
MITCHELL and BELL & HOWELL
Res. 1179 N. Kenmore
OLympia 9950
First National Studios
GL. 4111. Ext. 321



This illustration shows the Akeley Gyro Tripod in actual use by the Western Electric Company, taking sound moving pictures.

Again AKELEY

. . . anticipated necessity
with a tripod ideal for Sound Pictures

"GIVE us the best camera tripod that human ingenuity can devise!" This was the demand of the sound cinematographers.

It was characteristic of the Akeley Company that its research laboratories had already anticipated this demand and were putting on the market such a tripod—a tripod quiet in operation, capable of great speed and flexibility, vibrationless but light, staunch yet easy to manage.

The Akeley Universal Gyro Tripod, containing the famous gyro mechanism, stands today a leader in this latest field of photography. This tripod is in constant use in many leading motion picture studios making Sound Pictures. These studios include Metro-Goldwyn-Mayer, Fox-Case Movietone, Pathe and Paramount. Other world wide corporations, such as Radio Corporation of America, Westinghouse Manufacturing Company, Western Electric Company and General Electric Company are enthusiastic users of the Akeley Gyro Tripod in their important work. We i vite you to write for full description of this Tripod and details of our deferred payment plan.

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Alfred Weiss, *Pres.*
New York Hollywood

HOKE-UM

By Ira

Hobson's Choice

One of our Newsreel cameramen, upon alighting from the train in a small desert town not over a thousand miles from Hollywood, asked a native where he could find the best hotel in town.

"Well, mister," answered the man. "There ain't but one hotel in this here town, and that's the worst one."

Saving Waste

Director: "This scenario says the spy is to be shot at sunrise."

Movie Producer: "Impossible! Look at the overtime the cameraman would chalk up on a job like that."

A Traffic Jam

Motor Cop: "You're arrested for racing."

Lyman Broening (Astride his new motor car): "Oh, but you're mistaken. I wasn't racing. But say, I passed a couple of fellows down the road there, who were."

Leather Goods

Conductor on San Diego train (After stumbling over obstacle in the aisle): "Young feller, you can't leave your valise in the aisle."

M. Hall (Indignantly): "That's no valise, sir. That's one of my Union-Label shoes."

Gospel Note

Clyde De Vinna (In darkest Africa): "So you natives know nothing whatever about religion?"

Brunette Native: "Well, we got a taste of it when the last missionary was here."

A Sad Story

Eddie Gheller says he does not dare use one of the new AGFA cameraman's time books because he might find out that he owes Charlie Chaplin some undertime.

A Tough Spot

Speed Mitchell: "Is there any such thing as perpetual motion?"

Roy Klaffki: "Yes. When you're waiting for a short-end to slap through during a long scene, not knowing that your assistant put on a fresh thousand just before the scene started."

Financial

Art Reeves: "If you are a good little girl. Barbara, I'll give you this nice bright new penny."

Barbara: "Haven't you got a nasty, dirty old quarter instead?"

Sartorial

Fred Kaifer (Out with M.-G.-M. cutter girl): "Wonderful night, a beautiful girl—what a combination!"

Cutter Girl: "Heavens! Is that showing?"

Finicky

Joe MacDonald: "I want to buy a Union-Label collar."

Clerk at Gumbiners's: "Like the one you have on?"

Joe MacDonald: "No. I want a clean one."

* *

With Decorations

Brother Charles P. Boyle now has a new Mitchell camera and a mortgage.

* *

Why Saps Are

When there is nothing more to be said some sap always comes along and says it.

OPTICAL PRINTER FOR R. K. O.

Fred Hoefner, of the Cinema Machine Shop, 5319 Santa Minoca Boulevard, has just delivered to Lloyd Knechtel, of R. K. O. Studios, an optical printer which is described as the last word in these marvelous machines. The printer was designed and built by Mr. Hoefner himself after specifications by Mr. Knechtel, who is head of the special process department of R. K. O. Mr. Hoefner is the manufacturer of the famous Trueball Tripod Heads.

o

BACK FROM MARYLAND

Joe August, Walter Scott, R. E. Webb have returned from Annapolis, Maryland, where they filmed "Salute," a Fox Movietone, at the U. S. Naval Academy.

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LOS ANGELES, CALIF.

HAVANA IS STILL WET

Brothers Joe Valentine, George Eastman and Max Cohen, with Clarence B. Hewitt on the still camera, have just returned from a trip of several weeks, during which they spent seventeen days in Havana, Cuba, photographing scenes for the Fox Movietone feature, "The Girl From Havana." While in Havana they photographed the inauguration of President Muchado, which is now to be seen in the current Fox Movietone News. The troupe say that Havana is all wet.

o

OFF AND ON

Al Rogell: "The verbal expressions of aviators remind me of the policy of certain Hollywood studios."

Eddie: "How so, Al?"

Al Rogell: "Well, the aviators say 'Contact—Off;' while with the studios it's 'Contract—Off.'"

o

HOKE TO TECHNICOLOR

Associate Editor Ira Hoke of **The International Photographer** has been called to a position on the camera staff of Technicolor, but he will not be too busy to continue his activities on the magazine he did so much to create.

o

THE CARLSBAD CAVERNS

Brothers M. A. Anderson and Kay Norton got a great thrill out of shooting "The Medicine Man" in the caverns at Carlsbad, directed by Jack Irwin. Andy says nobody who has not seen the caverns cannot begin to imagine the gorgeriferousness of them. Some of the rooms, he says, are 350 feet high and half a mile long. Andy and Kay shot their stuff at the 750 foot levels. How about those stills, Andy?

o

OLD AND NEW

Says Ira Hoke: In the old days the photographers all saw the image on the ground glass upside down. That is just the condition the whole craft was in. Through careful organization the craft has been turned back right side up. Strangely enough the cameraman of today sees his photographic image in this manner, too.



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"THE DAILY GRIND"
By RALPH B. STAUB



RAN into a Scotchman looking for an extra body — he heard that JOHN BOYLE had a free head.

* *

HARRY FOWLER was born with a silver spoon in his mouth, but it had the name of a cafe on it.

* *

ALVIN KNECHTEL was once a private detective. By uncanny skill he discovered the room of a hotel by its number.

* *

There must be a wee bit of Scotch in EDGAR LYONS. Caught him counting his money in front of a mirror. LOOKS LIKE EDGAR DON'T TRUST HIMSELF.

* *

SAM LANDERS to leading lady: "IT CERTAINLY TAKES YOU A LONG TIME TO POWDER YOUR NOSE."

Leading Lady: "VELL?"

* *

WALTER LUNDIN says he will never worry if he has to get out of the motion picture business. He says he has flat feet and can always buy a derby and a couple of cigars and become a first-class detective.

* *

GLEN MAC WILLIAMS' favorite story is about the Englishman, Irishman, Jew and Scotchman who entered the saloon (B. V. before Volstead). The Englishman stood a round of Bourbon. The Irishman a round of rye. The Jew stood around six foot six and the Scotchman stood around and admired them all.

* *

I asked ARCHIE STOUT where he got such thick lips. He says he was once a fighter and they came from his continually kissing the canvas.

* *

BILLY MARSHALL says he watched ARCHIE fight a few times and that the count of ten was like a lullaby to Archie.

I met RAY JONES walging along the road to Universal, he looked so dangerous he should have been carrying a red lantern.

* *

MAX FABIAN says he knows a girl in Hollywood whose slogan is: "WHEN BETTER MEN ARE MADE I'LL MAKE 'EM."

* *

RAY JUNE says a man has a right to be as homely as he wants to, but thinks his assistant abuses the privilege.

* *

LEN POWERS has my old job at Columbia shooting Screen Snapshots. Good luck to you Len. I stayed on the job for two years and eight months. If you can beat that, I'll buy you a nice new hat.

* *

Might as well give myself a little publicity. Want you boys to know I'm making my own Star Newsreel entitled, "HOLLYWOOD SCREEN STAR NEWS." stationed at Tec Art studios with the Disney Bros., releasing direct to theatre circuits via Mr. P. A. Powers' distributing concern.

* *

MILTON KRASNER to his sweetheart: "Let's get married."

Girl: "Aw, no."

Milton: "Come on—be a support."

* *

ERNIE CROCKETT says an oldtimer is a guy who remembers when cameramen used to work from ten to twenty hours a day without overtime.

* *

GEORGE UNHOLTZ says he agrees with ERNIE. But thinks an oldtimer should be one who can remember when they wore sailor straws with ribbons hanging on them.

* *

Sat across from PERCY HILBURN at M-G-M the other day and noticed big holes in his shoes. Guess it won't be long before Perc. is on his feet again.

* *

Famous last words: **Be sure your company puts the I. A. T. S. E. credit to your name on all your productions.**

With the Pioneers



This is Brother Harry M. Fowler, with the first Mitchell camera shot in June, 1919. About 1915 Mr. Leonard, then a still photographer with the American Film Company, and Harry Fowler conceived the idea of swinging the entire camera away from the photographing aperture and at Fowler's suggestion Leonard designed the internal iris, four way mats and disc filter holder. The first complete picture shot with the camera was one of the "Smiling Bill Parsons Series at the old National Studios, Gower at Santa Monica, in May or June, 1918.

On the strength of this camera's remarkable ease and efficiency in operation, Wm. Parsons organized the National Camera Company to build it commercially. This company opened and equipped a shop on the present site of what is now the Mitchell Camera Corporation's factory, on Santa Monica Boulevard.

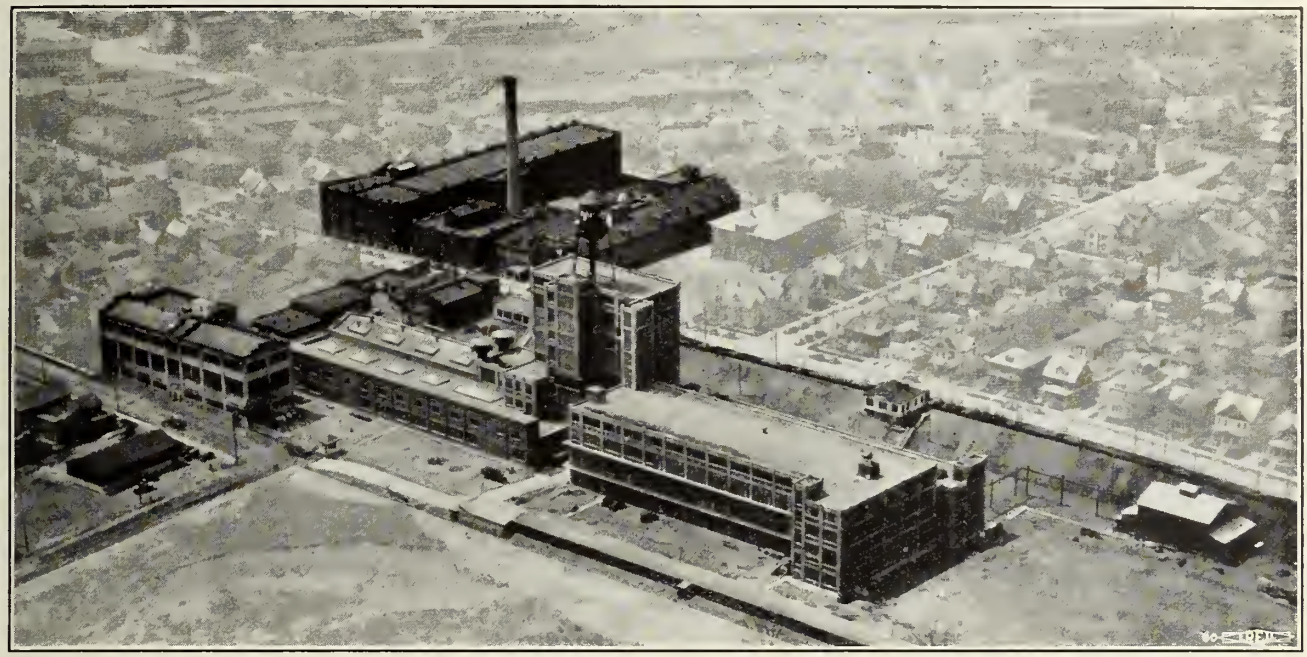
After the death of Parsons the National Camera Company was taken over by the Mitchell Camera Corporation, headed by Hy. F. Boeger, with George Mitchell as chief machinest and general superintendent, who developed and perfected the Mitchell. And this was the beginning of what is now the internationally famous Mitchell camera and Mitchell speed camera.

HARRY PERRY

Available for Sound-Cinematography With Mitchell Camera Co.'s Finest Sound Equipment

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Agfa-Ansco's New Plant



Agfa Ansco Corporation, Binghamton, N. Y., has completed the installation in its new plant for the manufacture of Agfa Film, and the month of June will see Agfa Film rolling out of this plant in real production volume.

The new plant, which is shown in the foreground of the accompanying photograph—made by a member of the Agfa Ansco technical staff who owns his own plane and takes to the sky in his leisure hours—represents in construction and design the accumulated experience of the industry. In planning it the Agfa engineers laid out a factory which is the most advanced from every standpoint—technical procedure, economical production and general manufacturing efficiency.

The plant covers more than 100,000 square feet of ground space and is really an assembly of eight buildings with the emulsions starting at the top of the eight-story building in the middle and processing downwards in an efficient production line to the stock and shipping rooms on the lower floors of the other buildings.

THANK YOU, AGFA

Local 659 sends grateful acknowledgment to King Clarney, of Agfa, for the contribution of 2,000 time books for use of our members. These little books are for the use of members to keep an accurate record of hours of employment. They will be issued at the next general meeting on June 6, and extra copies may be had at Local headquarters or at the Agfa office, 6370 Santa Monica boulevard.

o

ERPI HOLDS MEETING

Erpi, Electrical Research Products Company, Inc., representatives, to the number of thirty, held a meeting in the theatre of the Eastman Kodak Company's new Technical Service Building, 6706 Santa Monica Boulevard, on the night of Wednesday, June 19. Mr. Morgan presided and he introduced Mr. Hopper, who addressed the group on the subject of acoustics. A sound record was run in illustration of Mr. Hopper's talk, with musical accompaniment, and the occasion was both pleasurable and profitable. The Eastman Service Theatre is the finest of its kind in America and the equipment is unsurpassed—sound and all.

PAGE ALF RINGLING

Earle Walker has trained his three Siamese elephants so carefully that they have become quite attached to him. They follow him everywhere. Imagine his embarrassment the other day when they insisted upon following him right into his camera booth on the First National sound stage.

o

THE VEGETABLE MARKET

Alfred Gosden blossomed out this summer in one of those natty Union Label straws displayed by the New York Hat Store across the street. Brother Gosden is one of our staunchest supporters of the Union Label.

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Same on the new Bell & Howell spool.....$3.75
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17½-foot pieces for Septs., 3 for $1.00, 7 for $2.00, 15 for $4.00
35-foot pieces in individual cans, 1¾c foot in 1000 foot lots only
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Arc Light

BY

HARRY BROWN, *Prest. Cinema Studios Supply Corp.*

Some two to three years ago the motion picture industry seemed to realize that there was something wrong and that the attendance at picture theatres throughout the country was dropping off rapidly, which was cutting into the earnings to a dangerous point. No one seemed to know just exactly what the trouble was and it is the usual procedure in any industry, when there is a slump, to cut expenses in the point of production and this was what all producers attempted to do. Most people connected with the industry are more or less familiar with what took place.

The most important departments to suffer were the electrical and mechanical, due to high speed film, because it was found that it was impossible to photograph a motion picture with incandescent lighting equipment. It was also discovered that this lighting equipment could be operated considerably cheaper than the arc lighting equipment in use at that time and, without consideration of the very excellent photography produced by the arcs, most of the large studios installed or purchased a considerable amount of incandescent equipment.

Now, it is not the writer's idea to criticize any move that goes for efficiency, but I think that I am justified in criticizing an industry which impairs the quality of their production by the introduction of an efficiency measure which amounts probably to five or six per cent but decreases the quality a great deal more.

For the past twenty years it has been the untiring effort of those connected with the art of photography to strive for perfection and it was customary for critics to have something to say about the photography of all large and small productions, but when this move of economy took place we wiped away in a few months what had taken years to attain.

Then came the sound pictures. The novelty of this new advent blinded not only the producers, but the public as well. I believe, however, the time is coming when the industry will be compelled to give serious consideration to the re-establishing of something like perfect photography.

It is the writer's opinion that it is far more essential to have detail and perfection in sound pictures, than it was in the silent drama. When the observer becomes intensely interested in the drama being unfolded and all of a sudden is confronted with scenes in which it is impossible to see the performer's face at the same time that you hear the voice, the attention of the audience is not held as it should be. There are other cases also—spectacular scenes where the background is lost because of the poor lighting arrangements.

It is true that a large part of the arc lighting equipment cannot be used in the making of talking pictures, because of the fact that most of it is obsolete in the first place, and it seems reasonable to assume, where an organization will spend one-half or one million dollars for sound apparatus so delicate that they have to rebuild their sages, that it would be just as logical to invest in new and up-to-date lighting equipment.

In so far as economy goes it will be found, I think, when all facts are taken into consideration, that arc lighting is still not only the most essential, but the most flexible equipment, as well as having many other advantages. After an unbiased and intelligent investigation, one cannot help but come to this conclusion.

This article will be followed by a more detailed and complete analysis of costs and operations.

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—AND—

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Shooting Hell's Angels

BY

HARRY PERRY
Chief of Aerial Photography, Harry Perry, Relates Incidents of Its Filming. Statistics.

Seventy exterior and interior sets, providing background for the ground action alone, were constructed at a cost of approximately $800,000. Dressing of the scenes, alone, cost another $70,000, and costumes used by the players totaled $165,000.

But greater even than the ground operations were the aerial activities which continued for eighteen months, used the largest forces of planes and personnel ever privately brought together and probably flew more war craft than all other previous war pictures combined.

There were 137 skilled men on the air force payroll, 72 of them pilots and 65 mechanics. The "Hell's Angels" air fleet consisted of 87 true war-type planes, half a dozen camera ships, a giant German Gotha bomber, and a German dirigible. Among the types bought and re-conditioned for the picture were German Fokkers, British T. M.'s and S. E. 5's, Avros, DeHavilands, Jennies and Snipes. It cost $560,000 to buy and restore this equipment.

Approximately $1,200,000 was expended on the air flights alone.

The aerial action was conducted in eight different locales in California, with specially constructed fields, ships and hangars at Caddo Field, Van Nuys, as a permanent air base.

At Inglewood, a British training camp was reproduced. Scenes behind the lines were represented at Encino, and a German field was maintained at Chatsworth. Flying fields at San Diego and Riverside were used for other portions of the story, the Zeppelin's North Sea flight was recorded off the beach at Santa Cruz, and then for four months at the great Oakland airport, opposite San Francisco, the greater combats of the air were pictured with the full fleet of 87 war planes in operation.

From beginning to end nearly one hundred members of Local 659 were employed on this picture either as cinematographers or assistants.

Almost two years filming.

Howard Hughes, president of the Caddo Company, the ruling spirit of the production.

Cost approximately $3,000,000—not hokobolos or copecks.

Forty planes in a single shot.

Two million feet of film in the can.

Here are some statistics from the auditor's books of the Caddo Company:

Gaetano Gaudio shot the dramatic scenes of the picture aside from the aerial work.

Incidents of Filming "Hell's Angels"

Al Johnson, stunt pilot, had narrow escape when the wing of his plane scraped the ground in making a turn close to the ground for scene at Marsh Field.

George Cooper and Bob Lloyd had near accident when their plane scraped top of hangar at Marsh Field.

Al Johnson died from burns re-

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ceived when plane which he was taking from Glendale to location at Inglewood failed to clear a high line tension line at Glendale airport, crashed and burned.

Howard Hughes had narrow escape from death when a Thomas-Morse single seater which he was flying for the first time went into a tail spin at location at Inglewood from a height of about 300 feet. The plane was a mass of wreckage out of which Mr. Hughes emerged smiling. He was laid up for about a week with a bad eye and bruises.

Maurice Murphy had a forced landing at Inglewood because of a bad motor. He was later killed in a crash at San Diego while flying a Maddox plane.

Ralph Blanchard, technical director at the start of the picture, was killed in a home-made plane after leaving the employ of Howard Hughes.

Ross Cooke had a crash at Santa Paula location and British type S. E. scout was washed out.

Al Wilson lost a prop from the German Fokker which he was flying over fog above Hollywood and jumped with a parachute. He alighted on the roof of a house close to Hollywood Boulevard and LaBrea; plane landed in Joe Schenk's back yard, two blocks from Grauman's Chinese Theatre.

Roscoe Turner brought a big two-motored bomber across country from New York to Caddo Field in the San Fernando Valley. He went into a tail spin over the San Bernardino Mountains and narrowly missed crashing. After changing ship over from passenger ship with capacity of twelve passengers to German bomber, it was tested at Caddo Field and Roger Manning, technical director, narrowly missed serious accident when he was knocked down by a prop blast and tail skid narrowly misses his body.

Jack Rand had a landing gear buckle in landing after a shot in the air and the plane turned over on its back.

Frank Clarke did a ground loop at Long Beach and broke a wing and prop.

Roscoe Turner took up a Ryan monoplane belonging to Roy Wilson with Ben Lyon as passanger, to fly to the Breakfast Club. While circling there they ran out of gas and were forced to land in the Los Angeles river bed, where they crashed and turned over, but escaped injury.

A bomber landed at Rogers Field and broke a wheel, holding up work for several days.

A scene was made of a bomber by about five cameramen and Howard Hughes on a 20-foot parallel, photographing it coming straight for them with motors going. There were about forty men on the ground to stop the bomber before it reached the parallel, but it took them along like they were nothing and the only thing that stopped it was a large twelve-foot log right at the foot of parallel. A tragedy was narrowly averted.

In attempting a shot of the bomber taking off two cameras worth $8,000 were smashed and scattered over the field when hit by landing gear and propeller. Harry Perry and Jeff Gibbons narrowly escaped being killed when part of a broken prop whirled by their heads. Also Elmer Marcy, mechanic, had a narrow escape when a piece of prop went through the nose of a bomber where he was riding. The bomber ended up in a plowed field and was laid up a week for repairs. Mr. Hughes, who was playing golf, was notified by phone, and the first thing he wanted to know was if the film was all right. When told that it was ruined, as the magazines were smashed to pieces, he said: "Well, I'll be out when I finish my game"—which apparently was more important than a $25,000 loss.

Phil Phillips, a Hollywood flier, who formerly was employed by the American Society of Cinematographers as assistant business manager, was killed while taking a British S. E. 5 from Hollywood to location [illegible]; his destination he apparently ran out of gas and to avoid crashing into a grove of trees he made a bank with the wind and lost flying speed and dived into the ground. Phil was a fine boy and evidently sensed an accident before he left the Caddo Field where he had molded a little grave and put a silver tin foil cross on same at spot where he sat talking to Schechel, the field watchman, while his ship was being warmed up.

Frank Tommich was sent down from Oakland to bring up another S. E. 5 to take the place of the one smashed and was five days getting back on account of bad winds. While in Oakland, where we were attempting to get the biggest and most expensive scene ever made for pictures, we had many forced landings and several crashes. This scene will run only about 100 feet in the picture and cost $100,000 to get. It consisted of fifteen white ships, representing the British, and sixteen black ships, representing the Germans. These two groups are shown coming together and engaging in a dog fight around the bomber, and was photographed with cameramen in four other ships and several automatic cameras on ships in scene. This shot took two months, including two weeks' rehearsal, before being done satisfactory.

One day a plane flown by Jerry Andrews was run in to by another plane, pilot unknown, and the upper part of Andrews' upper wing was ripped off, but he made a successful landing.

Another day two planes, pilots unknown, came down with the ends of wings smashed. Another time a plane flown by Stewart Murphy crashed into one flown by Ira Reid. Murphy used his parachute successfully, but his ship was washed out. Reid brought his down with the lower right wing knocked off.

While coming back from Oakland three Fokkers were washed out through forced landings. They were flown by Ross Cook, Ira Reid and Earl Gordon, none of whom were hurt.

While attempting to spin the bomber for a scene being shot from three camera ships it went out of control of Al Wilson, who was forced to jump from a height of 5,000 feet. Phil Jones, mechanic, who was in the cabin of the bomber, was killed in the crash that followed and the bomber washed out.

Burton Steene, Akely cameraman, who photographed aerial scenes throughout the picture and who photographed the bomber as it fell, had an attack of heart failure next day and passed away about a week later. Steene had suffered from heart trouble for several years unknown to us fellows on the picture, for he never complained.

Roy Wilson, Earl Gordon and Ira Reid all had forced landings on the same day.

O'Toole was badly hurt by a prop at German field location and laid up. A month later he was killed in an airplane accident, but not on the picture.

Roy Eilers was hit by a bomber prop and laid up for a week.

Following are approximate flying hours by cameramen, actors and pilots on "Hell's Angels":

Burton Steene, 200 hours; Harry Perry, 175 hours; Elmer Dyer, 50 hours; Ben Lyon, 75 hours; Jim Hall, 65 hours; Roscoe Turner, 300 hours; Frank Tommich, 350 hours; Frank Clarke, 450 hours; Earl Gordon, 150 hours; Ross Cook, 150 hours; Jack Rand, 150 hours.

—o—

WELCOME LOCAL 665

Canadian Society Cinematographers and Photographers of Toronto Makes Its Bow

A. M. Beattie, press representative of the Canadian Cinematographers and Photographers, recently organized at Toronto, Canada, sends this interesting communication to **The International Photographer:**

Organized six weeks ago, with a membership now of 29 cameramen, representing every large center of population in the Dominion, Canadian Society Cinematographers and Photographers Local 665 is away to a flying start. Already it is the proud boast of this local that its membership includes more than 90 per cent of the eligible cameramen in the Dominion.

At its inception Vice President Francis E. O'Byrne, who presided, stated that it was the intention of the members to raise the status of Canadian cameramen to that enjoyed by their brothers across the line.

Prior to the formation of Local 665 Canadian cameramen led a most uncertain existence. Salaries were whatever employers cared to pay, hours were long and there was no extra pay assured for overtime. Men could be discharged for any reason whatever and foreign cameramen could come here and compete without having to conform to any regulations whatever.



John Corydon Hill

Upper Left—Going into action with camera at close range. Note camera mount, operated by motor.

Right—Elmer Dyer at his rapid fire moving picture gun.

Center—A few units of the war fleet lined up at Oakland Airport with the photographers and pilots.

Lower Left—Harry Perry, generalissimo of the "Hell's Angels" photographic army. Lower Right—Ready to go aloft. Left to right, standing—William Tuers, Elmer Dyer, Harry Perry, Burton Steene. Sitting—Rod Tolmie, Jeff Gibbons, T. M. LeClede, Donald Brigham.

General Meeting

Local 659

At the last general meeting of Local 659, held at the Hollywood Chamber of Commerce on the night of June 6, 1929, the attendance was large and the interest intense. President Alvin Wyckoff was in the chair. After the discharge of routine business, the honor guest of the evening, Joseph N. Weber, president of the American Federation of Musicians and vice president of the American Federation of Labor, was introduced and delivered a delightful talk in his own inimitable style. Brother Weber said in part:

"As an infant local, one of the latest to join the great American Federation of Labor, you cameramen have startled labor circles with the rapidity and completeness of your remarkable growth," said Brother Weber.

"Through your affiliations with the American Federation of Labor and the International Alliance of Theatrical Stage Employees, you have established conditions essential to your welfare that could have been accomplished in no other way.

"Few Local Unions in the American Federation of Labor can point a parallel to your complete and carefully guided organization."

Briefly, Brother Weber outlined the growth of the American Federation of Musicians. He told of their struggles, and the dark hours that preceded their astonishing success.

He touched on the vast benefits for the Musicians through Unionization, and predicted similar benefits for the camera craft.

Brother Weber was accompanied by Brother Jessie W. Gillette, the popular and energetic president of Local 47 A. F. M., who also spoke briefly.

Business Representative Howard Hurd addressed the meeting at some length, for the most part confining his remarks to affairs appertaining to the wage scale recently put in force. Especially did he stress the point that the Executive Board of Local 659 has the greatest faith in the spirit of sincerity, integrity and fair dealing on the part of the producers in the carrying out of their part of the agreement, and the Local executives are proceeding with their part of the work of its administration with all the confidence in the world that the producers will do all in their power to co-operate one hundred per cent.

A piece of propaganda that is being circulated in our ranks is that our contract with the producers is full of holes. If the contract were sieved and the holes sufficiently small to catch $10,000.00 dropped therein for each week that these men worked it seems to me that it is a pretty good sort of a contract. It is alleged that the word "emergency" in the following paagraph is one of the holes. I want to tell you something, fellows, about Class 3. I want to point out to you first that in the establishment of this class we have a condition which will ultimately react to the benefit of every man employed in the Motion Picture Industry. The idea is decidedly a radical departure from customary hourly regulations of the union. It was conceived, I am informed, in the mind of Mr. Guy L. Currier, a Boston and New York corporation lawyer, a man whom many of your executive board members have had the pleasure of meeting, a man with whom members of your committee were in constant contact with for a period of a week, a man who is eminently fair to organized labor, and a man whom we may all look upon as a benefactor to the employees. It was the contention of the Motion Picture Photogra's pher Local that the cameramen employed in the Motion Picture Industry do not want to work the inhuman hours they have been obliged to labor in the past, that they want an absolute restriction placed on the hours of labor so that they might have the opportunity of obtaining rest. Mr. Currier, the representative of the combined studios signatory to the agreement with the International Alliance advanced his theory and the feasibility of his plan was concurred in by his associates, the owners of these studios. They acknowledged that there should be some regulation tending to restrict the hours of employment. No overtime was provided for under this class because it was felt by all that in so providing we would be actually encouraging the studios to work beyond the limited number of hours, and would thus defeat the very purpose of the establishment of this condition and therefore destroy the only excuse for its existence. It was only reasonable to expect that upon some occasions circumstances would compel the continuance of production for a short time beyond the allotted hours and a word was inserted to take care of pressing necessities. It was agreed that the word "emergency" or "emegencies" was suitable to take care of such cases. It would have been highly impractical to attempt the absolute definition of those circumstances which would necessitate working beyond the prescribed period, since a controversy would necessarily consume more time than two committees could devote to the definition and would result in the postponement of conditions to an indefinite time.

We have been informed that some of the minor executives claim that this word is the joker in the contract. I am sure that it was not intended by the producers with whom we dealt that any joker should be in this contract. We, your committee, are perfectly willing to stand on the strict definition of the word "emergency" if such a point is urged.

The language seems simple and the English lexicons make the word "emergency" easy to define:

"Except in cases of emergencies the employment for more than sixtv (60) hours a week, or the employment on Sundays or more than sixteen (16) consecutive hours shall be prima-facia evidence that unreasonable hours prevail."

Frankly, if we revert to a strict definition of the word, and it is called a joker the joke is certainly not on the cameramen.

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Borax Developer

(Continued from Page 21)

with no hydroquinone produced very satisfactory development in reasonable time. Comparing the images produced at equal developing times by developers containing metol with and without hydroquinone showed that the image density with hydroquinone present was very slightly greater than without it, but the fog in a number of cases had increased more than proportionately. It was possible, under these conditions of agitated development, to get cleaner results with metol alone as reducer, increasing the same some twenty per cent or less to compensate for the elimination of the hydroquinone.

With the higher borax concentrations emphasized in the second series, the hydroquinone is more active, but still there are a number of cases where the increase of fog is greater than the corresponding increase of development. Since our experience indicates that a very satisfactory developer can be made with only sulfite, borax and metol in it, we feel that we can recommend the following formulat as a developer for the negative film.

Sodium Sulfite (Anhyd.)	75 g.
Borax	5
Metol	2.5
Water to 1 liter	

This developer appears to need no bromide to reduce fog. This is an advantage, as bromide present in a developer reduces the development at the expense of the shadow detail developed in a time of development for which the remainder of the picture is satisfactory.

The developer has a life that we feel will be satisfactory, though, of course, no developer by itself remains entirely constant as it is used. An increase of time compensated quite well for age of the developer. It is almost useless to attempt here to give a life-footage figure that can be said to have general value. Our own tests indicate that the life as "as good as any and better than some."

o

DAVIDGE LAB. EXPANDS

The Roy Davidge Laboratories, which have occupied part of the old Filmusic building, 6701 Santa Monica boulevard, announce an expansion which takes in the entire floor space of the building from 6701 to 6715. This adds 6,700 square feet to the present space and makes the Davidge lot one of the largest on the West Coast.

New equipment will be installed, including burnishing, renovating and filmcoting machines. Mr. Davidge will have an important announcement in the August issue of **The International Photographer.**

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* *

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* *

No matter how old your tripod may be, its legs have their good points.

* *

A squeaking wheel gets all the grease. Try it and see what you get.

* *

Similies

As useless as a 4.5 lens on a talkie set.

* *

I wonder what became of Kleiglight, that old twin of mine.

* *

Add Sally Songs

I wonder what became of Sally Mander, that old flame of mine.

* *

Revival of Old Songs

You take the High Hat and I'll take the Low Hat.

And I'll see you in the projection room in the morning.

* *

Some one called the office the other day and asked for a certain cameraman's address. We did not have it because he had moved and failed to notify the office. Don't let this go any further, but it was a director that wanted to send a case of wine to his house. It might have been you but it wasn't me.

* *

Letter received says that my English and punctuation are atrocious. Right. If I had spent more time studying English I would not be able to work in Class A. 1.

* *

Jean Smith was going around looking for a headache because he had a box of Aspirin.

* *

Bert Lynch enlisted in the cavalry because he was promised a white horse.

* *

Carl Struss has a rigid finder bracket for the Bell & Howell that is very good.

* *

Freddie Kaifer rolling around in his new car.

* *

Virg Miller, in charge of the camera department at Lasky's, had a brother at the same studio in charge of the electrical department. If he could get another brother in charge of the Lab—what a break!

Speed Hall says that the lunches are not fit to eat and then has three. The thing he likes best about the lunches is the toothpicks.

* *

He is the only man in the business that can change main springs on an Ingersoll between shots. No foolin.'

* *

Benny Ray gets a job. If he takes his camera away from the fellow that has it the fellow loses his job. Benny does not take the camera. Benny gets the job regardless. Nice boy, Benny.

* *

Frank Titus, red curly hair and a smile a mile wide, has been to Mexico City, too.

* *

Borradaille, better known as "Bordy," has a camera which he has designed for aerial work that gets the stills on the wing. Used it plenty on "Hell's Angels."

* *

Les Rowley, less delays, in shooting stills. Grabs them on the run and favorite expression when rushed: "Just a minute."

* *

Mrs. Lincoln says that the next guy that makes a crack about Abe when being introduced is going to be sued.

* *

Al Gilks is an old salt. That's better than saying an old soak. When he started in the camera business they had to read the tape in fathoms to him.

* *

Bob Kurrle and Al Greene go to R. K. O. That raises "L" with the old top salary that they had for so long.

* *

Buddy Williams leaves for Africa. Things should be nice and quiet out Topango Canyon way.

* *

Curly Lindon joined a circus last year. Try and get him to go again.

* *

QUESTIONS AND ANSWERS

Some one called on the phone and wanted to know, if the studio paid $2.00 a day for a 4-inch lens, could he get $6.00 for a 12-inch.

How can I get permission to leave the set while recording is going on? Try raising your hand.

If it is midnight and I am on location three miles from the studio and a swell looking girl is paying a lot of attention to me and my sixteen hours are up, do I have to go home? Let your conscience, etc., etc.

If, after having three buckles and a run out, I then forget to throw over, what class am I in? You are in a class by yourself.

Does Paragraph 5 cover drinking, etc.? I see where it has been referred to the Joint committee. I have the address of several good joints if they want them.

Do you think that caps with the peak on the back will come in style again? I have one and don't want to throw it away because I understand they will be popular again. I don't think so. They were not practical. Every time I went to tip my hat and the peak was in the back, I hit my nose. And I have considerable nose.

I had three hours overtime last week and they paid me for five. Shall I use the money to pay my dues or shall I give it back?

Ans. The office needs a new pen. Don't you, Mrs. Lincoln?

Does a philosopher ride a philosopeed?

No. They generally ride the street cars.

* *

Now that the revolution in Mexico has been settled for a little while, we have been informed that production will start again and both companies are expected to be under way soon. Gonzallie Gonzallez reports that he had no co-operation from the Rebels as they insisted on doing their fighting in ravines and canyons and the light was so bad that it was impossible to get good closeups of the generals. Ramerie Ramerz sends in the following suggestion: That the size of the generals' hats be reduced as the brims are so large they cast very bad shadows. Tortillie Tortillo reports that on the day they had the big battle and a soldier was shot, it would have made a good dolly shot, but they had no appropriation for dollys. The last battle would have ended two days sooner, but was held over until better light could be had.

* *

THE DIME BUSINESS

I received several long wires from a friend of mine with some very hot information on some mining stock. (Yeah! Everybody does it sooner or later.) After walking in and out of all the brokers offices on Hollywood boulevard for several days I managed to get up courage to speak to one of the men that looked as if he could stand to be bothered. He proceeded to take me and the stock dropped seven pints, I mean points, and is still dropping. To top it all I get a special delivery letter from him telling me to vote for Bonelli. I don't know whether to sue or shoot him.

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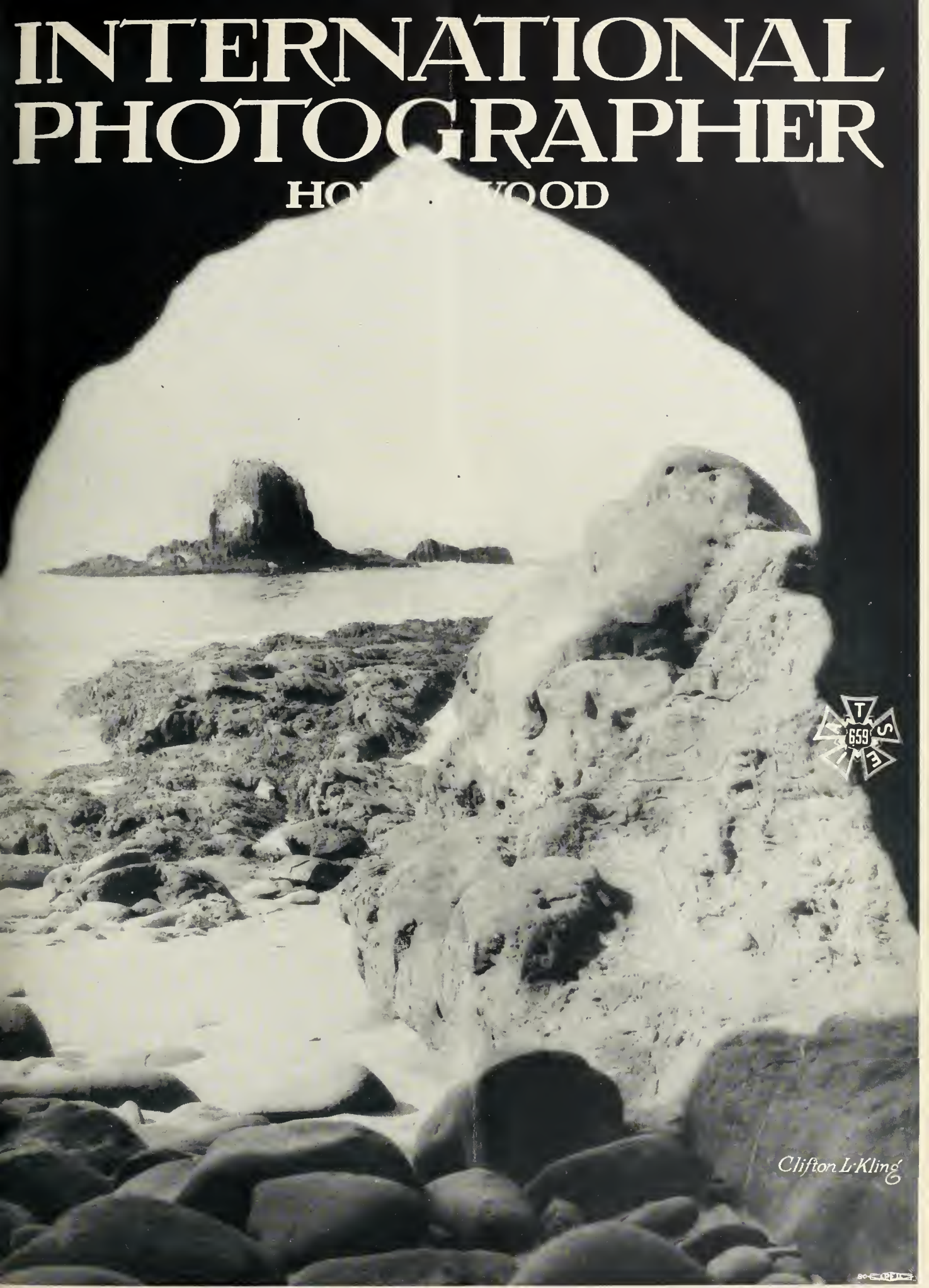
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The INTERNATIONAL PHOTOGRAPHER

Official Bulletin of the International Photographers of the Motion Picture Industries, Local No. 659, of the International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators of the United States and Canada.

Affiliated with
Los Angeles Amusement Federation, California State Theatrical Federation, Cailfornia State Federation of Labor, American Federation of Labor, and Federated Voters of the Los Angeles Amusement Organizations.

Vol. 1 HOLLYWOOD, CALIFORNIA, AUGUST, 1929 No. 7

"Capital is the fruit of labor, and could not exist if labor had not first existed. Labor, therefore, deserves much the higher consideration."—Abraham Lincoln.

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The International Photographer published monthly by Local No. 659, I. A. T. S. E. and M. P. M. O. of the United States and Canada

Howard E. Hurd, *Publisher's Agent*

Silas Edgar Snyder - - - - - *Editor-in-Chief* Ira B. Hoke - - - - - - - - *Associate Editor*
Lewis W. Physioc - - - - - - *Technical Editor* Arthur Reeves - - - - - *Advertising Manager*
Charles P. Boyle - - - - - - - *Treasurer*

Entered as third class matter Eebruary 13, 1929, at the Post Office at Los Angeles, California, under the provisions of Section 435½ Postal Laws and Regulations. Permit No. 1997

Subscription Rates—United States and Canada, $2.00 per year. Single copies, 20 cents

Office of publication, 423 MARKHAM BUILDING, 6370 Hollywood Boulevard, Hollywood, California.
HEmstead 1128

The members of this Local, together with those of our sister Locals, No. 644 in New York, No. 666 in Chicago, and No. 665 in Toronto, represent the entire personnel of photographers now engaged in professional production of motion pictures in the United States and Canada. This condition renders The International Photographer a voice of an *Entire Craft,* covering a field that reaches from coast to coast across the nation.

The Sound Track

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PAUL HILL

During the past month we have had a number of companies reporting location trips. These trips have been reported in a satisfactory and business-like manner by the cameramen and have enabled our Business Representative to check everybody carefully, thereby assuring members full protection while away from home.

As soon as you know definite details of any extended location notify the office the following information:

Place of location.
Time you expect to be away.
Time of leaving.
Names of all cameramen in the company.
Your chief electrician's name.
Names of your grips and propertymen.

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AN OPEN LETTER

July 13, 1929.

To The Editor,
International Photographer,
Hollywood, Calif.

Dear Sir: I am writing you this open letter in the hope that you may find space for it in the August issue of **The International Photographer.**

For nearly seven months I have been trying to perfect the organization work among the Art Directors, Designers and Draftsmen in the moving picture studios.

These men apparently feel that they should be permitted a separate charter, preferably with the International Alliance. This is impossible as the Brotherhood of Painters has been granted jurisdiction over this branch of work and, for a number of years, have controlled this work in the moving picture studios in New York City.

From time to time there has been a little interest shown, and some of the men have asked me to get a definite ruling on the matter. This I have done, both with the Brotherhood of Painters and with the American Federation of Labor. In both instances the answer has been that our organization, The United Scenic Artists Local 235, has been granted the jurisdiction and no further charter will be granted.

I feel that these men should line themselves up at once for their own protection and would be glad to talk with any of the men interested, or will meet them as a body and talk matters over.

Local 235 already has about thirty of these men lined up and it is up to the remainder of them to join so that the rules, regulations and working conditions of these branches of the craft may be made under their supervision. Failing in this it will be necessary for the men already in to act on the problems that affect the art director, the designer and the draftsman.

Any one interested can get further information by calling at 6472 Santa Monica Blvd., Room 208, or by phone, Granite 6155.

Thanking you for the interest you have shown in this matter, I beg to remain,

Fraternally,
W. B. CULLEN,
President, Local No. 235.

LOST CARD

Alfred E. Smalley reports the loss of his card, No. 35982. Finder will please return to office of Local 569, 423 Markham Building, Hollywood Boulevard at Cosmo.

Look for This Label



Cloth Hat, Cap, and Millinery Workers' Label

On all cloth hats and caps you purchase. No cloth hat or cap is union made unless it bears this label.

The Union Label is not only a sign of wholesome, cleanly standards of manufacture, but it is a symbol of Americanism, as the Union Label appears only on American made products.

EVOLUTION, NOT REVOLUTION

At a recent meeting of Local 659, Business Representative Howard Hurd, in speaking of the operation of the new wage scale and working agreement, said in part:

"The millenium will never be reached. It is impossible of attainment; however, I feel safe in predicting in the course of two or three years your conditions will closely approach satisfaction of every member. This will of course be the result of evolution and not revolution. Evolution is a slow process. We have the maxim expressed in numerous ways such as "Rome was not built in a day," "Patience is a virtue" and so on ad infinitum. In the meantime your Executive Board has demonstrated very well its marked ability to cope with the producers and is certainly entitled to more faith now than was ever confided in them prior to the establishment of these conditions. We want you to have confidence in the fact that while there are a few tangled knots now, they will eventually be straightened out. What we need is your co-operation—your 100 per cent co-ordination in our ranks, and absolute in ideas written into the office occasionally, adherence to the regulations, prompt reports in cases of violations, prompt reports in attempts to evade the scale and if this confidence and co-operation is reposed in your executive body it means that within a short space of time we shall have absolute co-ordination in our ranks, and absolute co-ordination will hasten the desired results. Faith will figuratively remove mountains. There is more strength in faith than there is in a square mile of dynamite."

The problem of lighting the sets for "The Medicine Man," photographed 785 feet down below the surface of the earth in the famous Carlsbad Caverns, was solved by using

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Cameraman W. A. Anderson directed the lighting and the photography was beautiful.

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Double Width Pictures

BY

CHARLES L. WILLIAMSON

WHAT is apparently the most revolutionary forward stride in the development of the films since the advent of talking pictures is embodied in Fearless Super Pictures, the discovery and invention of Ralph G. Fear; head of the Cinema Equipment Company of Hollywood, well known for numerous patented contributions to the film industry.

The new invention announced by Mr. Fear, will give a projected picture on the screen that will be approximately two times as wide as the present motion picture. Instead of having to employ double-width, or 70 m.m. film, as is the case with the film that is being experimented with by some of the picture producers, the Fearless Super Pictures are photographed on standard 35 m.m. film, through standard cameras, and projected on the screen through standard projectors.

Mr. Fear says that "with slight alterations in cameras and projectors, all of the various studio and theatre equipment now in use may be employed in this new method. By reason of this, producers can go into production with this new picture within a few days' time.

The chief points of importance in this new invention are summarized as follows:

1. Gives larger pictures on standard film.

2. Gives a more natural picture on the screen because it more nearly approaches the normal angles as seen by the human eye.

3. Gives a wider sound track for recording sound photographically on film, which improves the actual sound record.

4. Gives a sound track approximately twice as long as the present sound track, therefore gives greater sensitivity in recording, because the sound record for each vibration is twice as long.

5. Broadens the sound recording scope by giving increased length for recording, thus allowing recordings of twice the present frequencies.

6. Can be projected through standard projectors now in use.

7. Can be printed on standard printers.

8. Standard reels are used.

9. Standard developing machines, waxing machines, polishing machines, in fact all standard equipment now employed may be used.

10. Can be projected in any theatre having present equipment when slight alteration to projector has been made.

11. Standard cameras can be used after minor alterations have been made.

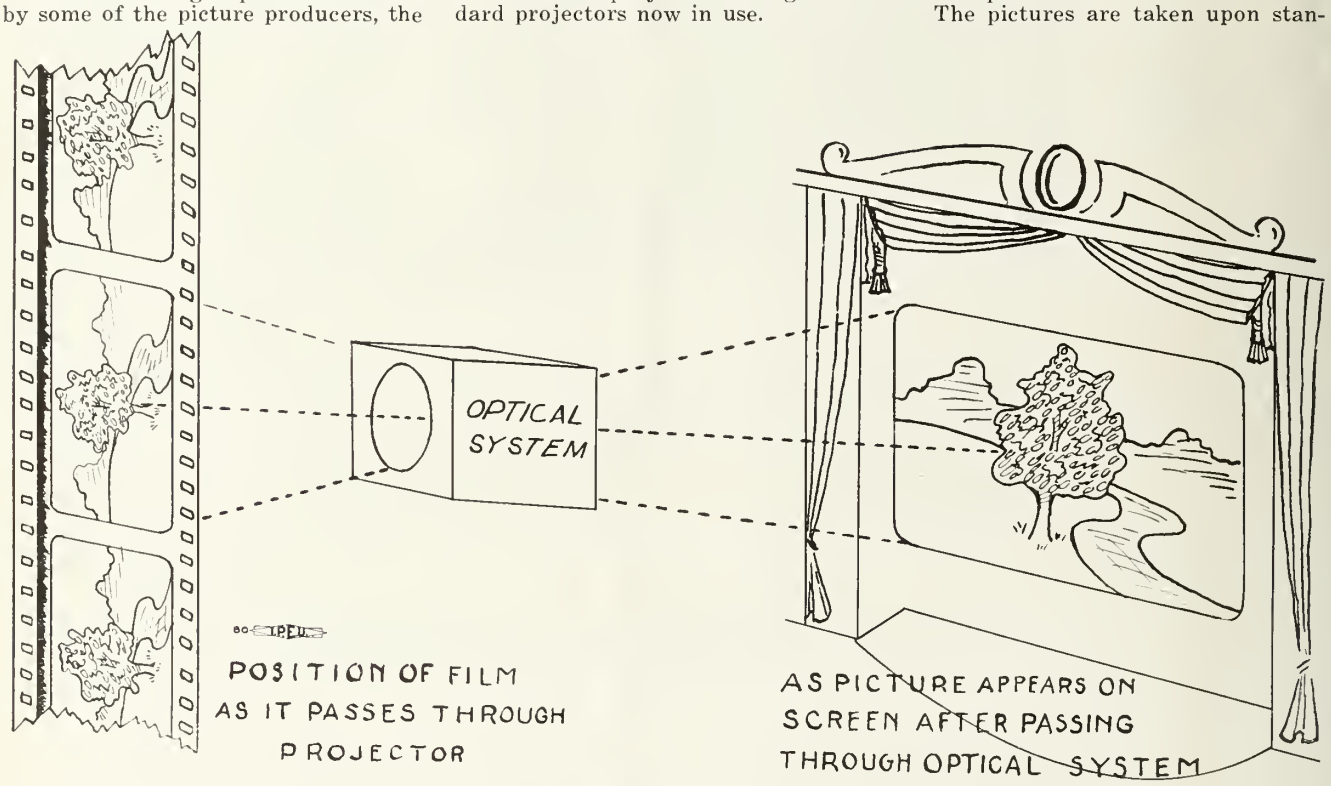
14. Eliminates the so-called grain in the film when shown on the screen, when great magnification is required.

16. Except for minor alterations to cameras and projectors, all of the present equipment now in use in studios, film laboratories and theatres may be used as at present.

Mr. Fear has applied for patents on all phases of his new method: The method of photography; the film with the combination of a sound track and rectangular picture with the top of the picture parallel with the edge of the film; for a camera suitable for photographing these pictures; for the method of turning the picture optically from a vertical to a horizontal position for projection; and on the combination of the optical system and projector necessary for turning the picture from a vertical to a horizontal plane.

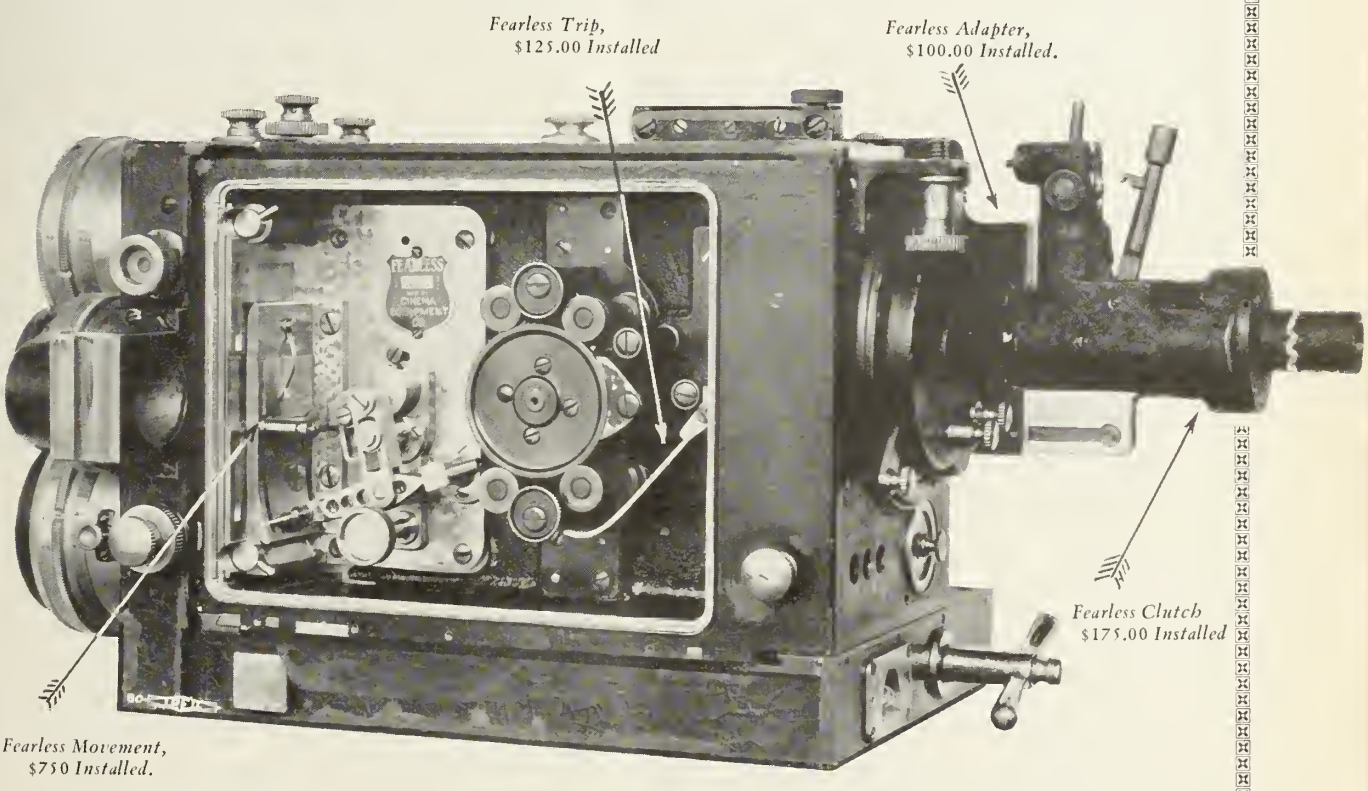
The pictures are taken upon standard motion picture film and are approximately .800 of an inch high and 1.813 inches long. The sound track is approximately .200 of an inch wide and is on the edge of the film. The picture is photographed, either in a vertical plane by use of an optical system that turns the image through an arc of 90 degrees and places it in a position on the film with the top of the picture parallel to the edge of the film, or it may be photographed directly upon the film without the use of any optical system. In the latter case the film runs horizontally past the aperture plate.

For years the standard dimensions of the motion picture film has been



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approximately ¾ x1 inch. Since the advent of talking pictures the photographed and projected picture has been decreased in width, due to the addition of the sound track, until it is nearly square.

"One of the worst objections to the present size picture," says Mr. Fear, "is the fact that it has lost, in a large measure, the quality of naturalness. Normal vision subtends an angle that is approximately twice as wide as it is long. The standard motion picture as projected today, appears almost square and this is one of the reasons present pictures do not appear natural on the screen.

"Many suggestions have been made for the improvement of the present pictures, the most logical being to increase the width of the film. However, so many difficulties are encountered with the 70 m.m., or double-width film that I cannot see where it can ever become a commercial success.

"The difficulties begin at the time the raw film is made and will continue through the photographing and processing of the film and its subsequent use for projection purposes."

"In the first place, with double-width film, there is a far greater tendency for the film to curl in the making. Special slitting is required to secure the double-width film. A special perforator is needed. Special cans are necessary for shipment from film manufacturer to consumer. The latter requires a special camera for photographing and has considerable trouble keeping the film flat at the aperature so that all parts of the picture are in focus. The tendency of wide film to curl makes it difficult to eliminate scratches during the process of photography.

"The 70 m.m. camera requires new type magazines and magazine spools. After the picture has been photographed it is sent to the laboratory where it again necessitates special apparatus. First, a special developing machine is required. Second, a special printer is needed for the positive. This in turn is developed and wound on special reels. It then requires special polish and waxing machines, and if spliced, special splicing machines. For inspection, special machines are necessary. After that it is shipped to the exhibitor in special containers. He in turn must have a special machine for projection.

"In short, if this film comes into common use it will mean that all of the motion picture equipment in present use will have to be scrapped. This will entail a cost of untold millions."

Mr. Fear, after years of experience in the film industry realizes that any radical change in the motion picture of today necessitating a complete alteration of the present equipment is impractical. He also knows that there must be a change, not only in the size of the projected picture, but in the so called sound track.

"The present sound track," he points out, "is not wide enough to give absolute fidelity of reproduction. Due to it's narrow width, any weaving of the film while passing the aperature which permits light to pass through the film to the photo-electric cell, will cause a change of tone in the reproduced sound. This is often very objectionable. The recording of the higher frequencies of sound presents another problem. This has been only partially solved. Sound engineers have increased the speed of photography from 16 to 24 pictures per second. This was done to give a longer sound track. At 24 pictures per second the film travels at the rate of 90 feet per minute or 18 inches per second.."

"When a ribbon light-valve is used with an aperture of .004 of an inch, says Mr. Fear, "the highest frequency that can be recorded is 4-18.000 or 4500. This is about the highest frequency successfully recorded by the variable density method. This comparatively low frequency cuts off many of the harmonics and overtones that are so necessary for correct rendition of sound. And this is one of the reasons why the speech recorded by different actors frequently sounds the same, since it is these overtones and harmonics, due to different speech characteristics, that give individuality to the different voices. The same thing applies to music and other sounds. This gives rise to the universal complaint of 'canned' or 'tinny' music.

"The use of double-width film only partially overcomes the sound engineer's difficulty, for although a wider sound track is used, the 70 m.m. film

(Continued on Page Twenty-seven)

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It has brilliance, but with it, the gradation which picks up a long scale of tones. It has speed, but also the fine grain so essential for enlarging. And it has the latitude that permits of variation in exposure without loss of quality—in short, it pairs up with Eastman Cine Panchromatic for uniformly high quality. One trial will make you want more Portrait Panchromatic results.

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

A Master of Emulsions

Recently Hollywood and the motion picture industry here were honored by a visit from Col. William George Stuber, president of the Eastman Kodak Co., of Rochester New York.



His coming was an event in Hollywood, for Col. Stuber probably plays less than any other big business chief executive in the world and his visits, wherever they may be, are for very definite business reasons.

As he is, in himself, an animated library on the subject of photographic emulsions, his time is in great demand by laboratory men and photographers in general, and as the Colonel is always eager to help others in his special line and life's work, he was very busy while here. Only once did the motion picture laboratory men have an opportunity to meet him in a body and that was at a charming dinner given in honor of himself and Mr. German, of New York City, head of J. E. Brulatour, Inc., distributors of Eastman motion picture film.

This delightful occasion was arranged by E. O. Blackburn, West Coast head of the Brulatour organization, assisted by his efficient staff-place Uplifter Club. There were no speeches, but all present had an opportunity to meet the honor guest informally and to talk as long as they cared. It is such gatherings that bring men closer together and enable them to solve problems and to understand each other.

Col. Stuber puts anyone at ease who may have the good fortune to interview him. He has no pose, like many captains of industry—he is dignified and self-possessed, but he is also the kind of man Abraham Lincoln called "folks"—the kind Lincoln, himself, was and the kind he loved and trusted. Col. Stuber, first of all, is a photographer. He loves it and he plays at it. His camera is always at hand—it is his recreation, a part of him. After that he is the executive of the greatest photographic organization on earth and, as his special function in this business, he is the emulsion expert, working both practically and theoretically—himself a member of his own staff.

For that is the crux of his business creed—the practical and the technical working together—a combination certain of successful achievement. Col. Stuber's life work has been the pursuit of the perfect photographic emulsion for every purpose and his work with Eastman speaks for itself, but he is just as hard at work on emulsions now as he was in the early days of his career before he had won international recognition.

After talking with Col. Stuber one gets the impression that the photographic art is just as good as its emulsions, and that means that cinematography at its best will be the achievement of cameramen who, possessing skill, artistry, imagination and a free hand, will have at their command the ideal in the way of emulsions on the film they use.

Col. Stuber was a great friend of our beloved Marse Henry Watterson, grand old man of the Louisville Courier Journal, and he won highest honors from the American Photographic Society with a photograph of Col. Watterson, posed, printed and finished by his own hands. He is an artist to his finger tips and had won his spurs as a photographer of national reputation a long time before Mr. Eastman called him to Rochester.

(Continued on Page 16)

Ninety degrees in the studio—hotter outside! Her Royal Highness, the star is dressed up in over a thousand dollars' worth of clothes—it'll cost the company nearly a third that much if they have to stop shooting because her make-up melts. That's one reason why National Photographic Carbons are used. They burn cooler. Keep make-ups from running. Keep stars tempers cool as well! Make work more comfortable.

National Photographic Carbons give more light per watt. You can tell for yourself by standing in front of a battery of arc lamps. You'll notice that they're cooler. Positive evidence that National Photographic Carbons are burning more economically. Energy is not wasted in heat. Heat is concentrated—bunched around carbon tips. No large area is offered for radiation. *That's why National Photographi Carbons give off light many degres cooler than any other form of staudio lighting —and use less energy.* Put National White Flame Photographic Carbons (hard-arc) in you Flame Photographic Carbons (hard-arc) in your arc lamps. Their rays are actinically identical to sunlight . . . interchangeable with National Panchromatic Carbons (soft-arc)—The carbons richer in red, orange and yellow-green rays.



JANET GAYNOR and CHARLES MORTON in *"CHRISTIANA,"* a Wm. Fox Production

National Photographic Carbons

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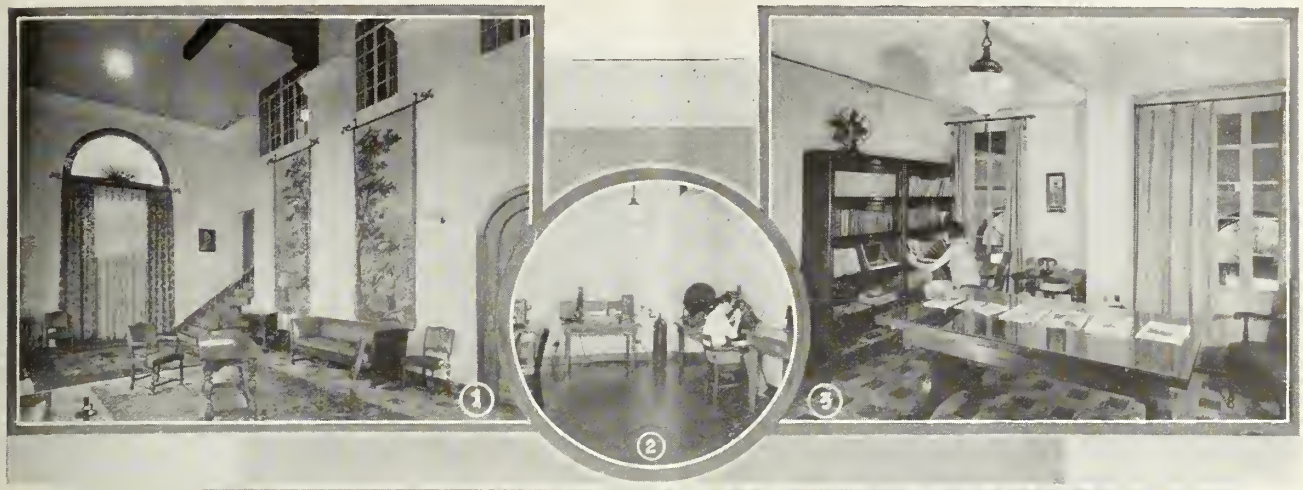
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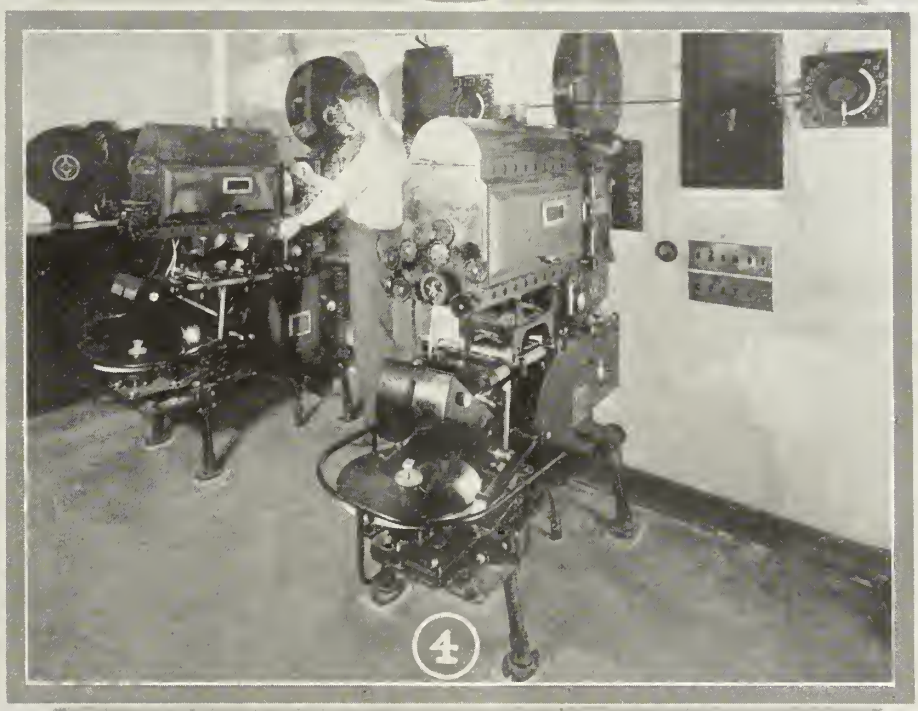
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TECHNICOLORINGS

Brother Edward T. Estabrook, pioneer first cameraman for Technicolor, has been promoted to the position of head cameraman for this company, and now has charge of all men and equipment operating in the various studios. Estabrook will be remembered for his admirable color pictures "Song of the West" and "On With the Show."

—::—

On the First National Lot an all Technicolor, all sound picture is under way, boasting a long lineup of 659ers in the bombproofs. This picture is "Sally." It promises to be one of the S. R. Os. on the First National screen. Cameramen for Technicolor are: Chas. Schoenbaum, Friend Baker, Lee Davis, Milton Bridenbecker. Cameramen for First National: J. Dev Jennings, Willard Van Enger, John Shepek, Bert Willis and Perry Finnerman.

—::—

Another stage extravaganza for the screen is "Paris," now being filmed on the First National lot in Technicolor and sound. Sol Polito, Eddie Linden, Roy Clark, Earl Stafford, Speed Mitchell and Russell Hoover complete the lineup for First National, while Howard Greene, Alan Davey, Ira Hoke, Robert Tobey and Chas. Geisler say it in Technicolor.

The aim of the union label is to advance all those who toil.

FOR INDUSTRIAL MEN



JAMES R. PALMER

Now that the agreement between the International Alliance and the committee of Motion Picture Producers is a fact and working smoothly in the studios, the Executive Board of Local No. 659 is able to turn its attention to other important matters in this jurisdiction, and one of these is the problems of Industrial men.

The representative of this classification on the Executive Board of Local No. 659 is Mr. James R. Palmer, who has had practical experience in industrial cinematography and who has the welfare of this classification very much at heart.

Mr. Palmer is arranging to make a survey among the industrialists of the Pacific Coast zone which lies within the jurisdiction of Local No. 659, and he confidently expects to enlist the co-operation of all industrial cinematographers in this district looking toward the organization of this class in order to cure abuses such as price under-cutting and bring about a better understanding among the operators.

Mr. Palmer says that organization and organization alone can bring order into the ranks of the industrialists and he feels that the example set by the studio cinematographers has already impressed the industrial brothers with the advantages of getting together in a bond of understanding that will enable them to demand a fair return for their work without fear of that senseless competition that has heretofore robbed them of the just fruits of their labors.

Mr. Palmer, who is also assistant to Business Representative Howard Hurd, of Local No. 659, had hoped to make a personal visit to every eligible industrial photographer in this zone, but the pressure of work in the office has made this impossible and he, therefore, invokes the aid of **The International Photographer** to reach those who desire to join this Local.

The initiation fee at present for that classification is twenty-five ($25.00) dollars for a limited period.



665 NORTH ROBERTSON BLVD.
WEST HOLLYWOOD, CALIF.

If there is not a member of this organization in the vicinity of the man wishing to apply for membership, statements from two operators who are members of the Alliance, and who have seen some of the work of the applicant screened, will be sufficient testimony as to the ability of that man in this line of endeavor. It is imperative that a man be thoroughly capable to handle any and all lines of work usually assigned industrial men, which also applies to so-called free lance news work.

FROM CHINA

Tom Gubbins writes from China that he is having a good time and that he will see us in September.

A LIGHT SUBJECT

All Creco went fishing in the High Sierras. Every time Big Pete Herrod caught a little fish he looked over and saw Slim Roe with a big one on his line.

AVOID THE RUSH

The new membership cards and stamps are here.

Get your card early.

LOST CARDS

Joseph R. Johnson, No. 36367.
Robert E. Cline, No. 35932.

How Bell & Howell *build*

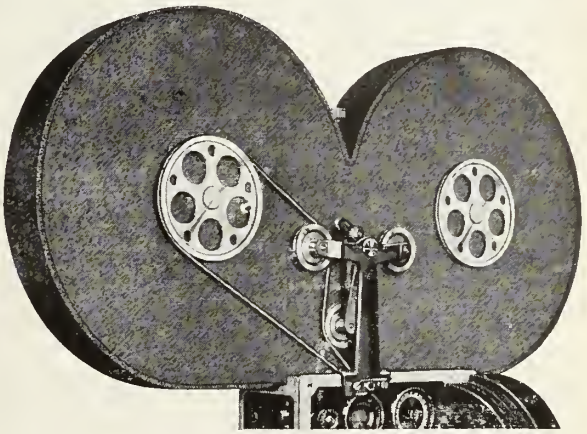
Silence into SOUND CAMERAS

Silence . . . and yet mobility!

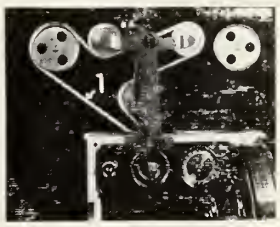
Thus the order came to Bell & Howell engineers and designers. And again there was a demonstration of that great precision and accuracy, that thorough-going engineering skill which has made Bell & Howell a by-word in nearly every major studio.

Felt linings, fiber gears, solid bronze bearings, endless fabric belts, sponge rubber coverings . . . every known method of cancelling, intercepting, and muffling mechanical noises was brought into play. The result is the Bell & Howell Standard Sound Camera, which operates within ten feet of the microphone, *without a booth,* and not the faintest click registers on the sound track.

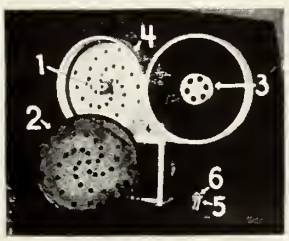
Consultations on any phase of sound-recording installations are invited.



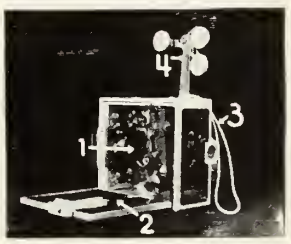
Bell & Howell 1000-ft. Sound-Proof Magazine equipped with Silent Belt Tightener that keeps uniform tension on endless fabric belt



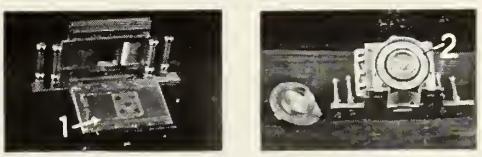
Silent Belt Tightener on Bell & Howell 400-ft. Magazine. 1. Endless fabric belt



1,000-ft. Sound-Proof Magazine shown disassembled: 1. Sound-intercepting holes drilled in back of magazine drums —2. Front of magazine with rubber cover removed—3. Three-inch spool—4. Rubber outer cover—5. Film roller— 6. Oilless film roller bearing



Speed movement of Bell & Howell camera equipped for sound work—1. Check-pawl super-speed movement—2. Felt lining of camera door—3. Endless fabric belt—4. Belt tightener



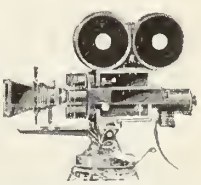
Bell & Howell check pawl super-speed movement — 1. Driving finger — 2. Formica (fiber) gear



BELL & HOWELL COMPANY

Dept. H, 1851 Larchmont Ave., Chicago, Illinois

NEW YORK, 11 W. 42ND ST. HOLLYWOOD, 6324 SANTA MONICA BLVD.
LONDON (B. & H. CO., LTD.), 320 REGENT STREET . . . . ESTABLISHED 1907



Wide Film and Its Possibilities

BY

FRED WESTERBERG, *United Artists Studio, Member Local 659 I. A. T. S. E.*



The use of "wide film," it seems, has been definitely inaugurated. Time alone will tell whether it shall be used merely as a competitive weapon by rival companies to exploit in various degrees and by various methods the sensational features of extreme width on the screen or, whether it shall be adopted by the industry as a whole in some rational form as a new standard to render sorely needed succor to the cause of cinematography.

The practice of cinematography has changed a great deal in the last few years. Some of the innovations such as the use of large aperture lenses, panchromatic film and incandescent light have been a distinct step forward because these things were primarily developed to help the cameraman achieve better results.

Other changes however, such as the decrease in the size of the negative, the altering of the proportion of the screen to almost a square and the creation of two different picture apertures in place of the one standard aperture have lessened the artistic and dramatic possibilities of the motion picture to a great extent, because these changes were undertaken without regard for the results on the screen.

We, as cinematographers, feel this loss more keenly perhaps than the public or even the producers do at this time, but sooner or later, the novelty of sound must wear off and the picture on the screen will then have to increase its effectiveness or pay the penalty at the box office.

If the possibilities of wide film are fully utilized, to the mutual advantage of all branches of the industry, there is every prospect that motion pictures will enter upon an era of golden achievement.

There are three definite things that may be accomplished by the utilization of wide film, first an increase in the area of the picture, second, an improvement in its proportion and last the finding of an acceptable standard picture aperture.

Increasing the area of the negative for instance is vital. The photographic image has ever been the backbone of the industry. Today that image is inadequate. The gradual increase in the size of picture houses and the advent of talking pictures have created a necessity for larger screens.

The tendency to pack the screen with actors, shoulder to shoulder like sardines, has imparted an aggravating monotony to pictures that is not apt to be remedied until the figures on the screen can be made to assume sufficient stature in long shots and medium shots by means of a larger screen. Increasing the size of the screen cannot however, be successfully accomplished by greater and greater magnification of the photographic image.

This has been clearly demonstrated by the "magnascope" which although effective enough for a shot like that of the ship "Constitution" under full sail or an aerial battle in the clouds, would never pass muster as a steady diet for picture fans. The solution obviously is to increase the area of the screen by increasing the area of the picture on the film.

There is a great deal to be gained too by altering the shape of the screen. The industry has hoped, despite misgivings, that the movietone proportion would "get by" but it is becoming increasingly evident that a screen proportion designed to offer greater artistic scope and greater possibilities for showmanship is vitally necessary. Sound cannot and should not be counted on to carry the burden of appeal indefinitely. The proportions so far presented on wide film seem to meet the requirements of showmanship in some respects at least. Ample scope is given for presenting the grandeur of nature or impressive group action. Whether these extreme widths are adapted to the normal requirements of production remains to be seen. It is quite probable that a proportion not quite so extreme in width would have greater possibilities for artistic treatment and offer fewer technical obstacles, might in fact have greater general usefulness without sacrificing the ability to present scenes in a grand manner.

In view of the foregoing requirements are we not justified at this time in seeking, through the medium of wide film, a standard picture aperture? 35 mm film it seems is unequal to the task. The king is dead! Long live the king! There are many angles to consider in making a choice, technical, photographic, mechanical, artistic, dramatic and financial but there is undoubtedly one size that will meet all requirements. We might try in a preliminary way to find that size.

The first step would be to increase the height of the picture. The logical procedure would be to retain the present sprocket holes but instead of making the picture four sprockets high, make it either five or six sprockets high. A picture four sprockets high requires 5400 feet per hour of projection; a picture five sprockets high would require 6750 feet per hour and a picture six sprockets high would require 8100 feet per hour. The last figure is rather high so a heighth of five sprockets will be tried. This gives the picture a height of about 22½ m.m.

Several factors should be considered in choosing the width. What are the requirements for instance of showmanship, of artistic composition, of optics, of cost and ease of handling in the laboratory and in cutting? Let us try multiplying the height by the dynamic ratio 1.61. This gives us a picture 22½ m.m. by 36 m.m. Adding 4 m.m. for the sound track and 11 m.m. for the sprockets we get a total width of 51 m.m. almost exactly two inches.

This gives us a proportion that should be amply wide for purposes of showmanship, yet capable of artistic treatment under almost any condition because the proportion is inherently sound from the standpoint of dynamic symmetry. The area is twice that of the present movietone aperture which means that the screen in a theatre may also be twice the area with no increase in grain.

The width is not so great as to necessitate a radical change in lenses on the camera. The qualities of depth of focus are not greatly endangered nor is the width great enough to make it necessary to take extreme measures to obtain satisfactory definition at the sides.

The width is narrow enough to offer no great handicaps to efficient handling in the laboratory and in the cutting room, and all things considered, the cost involved is as reasonable as could be hoped for.

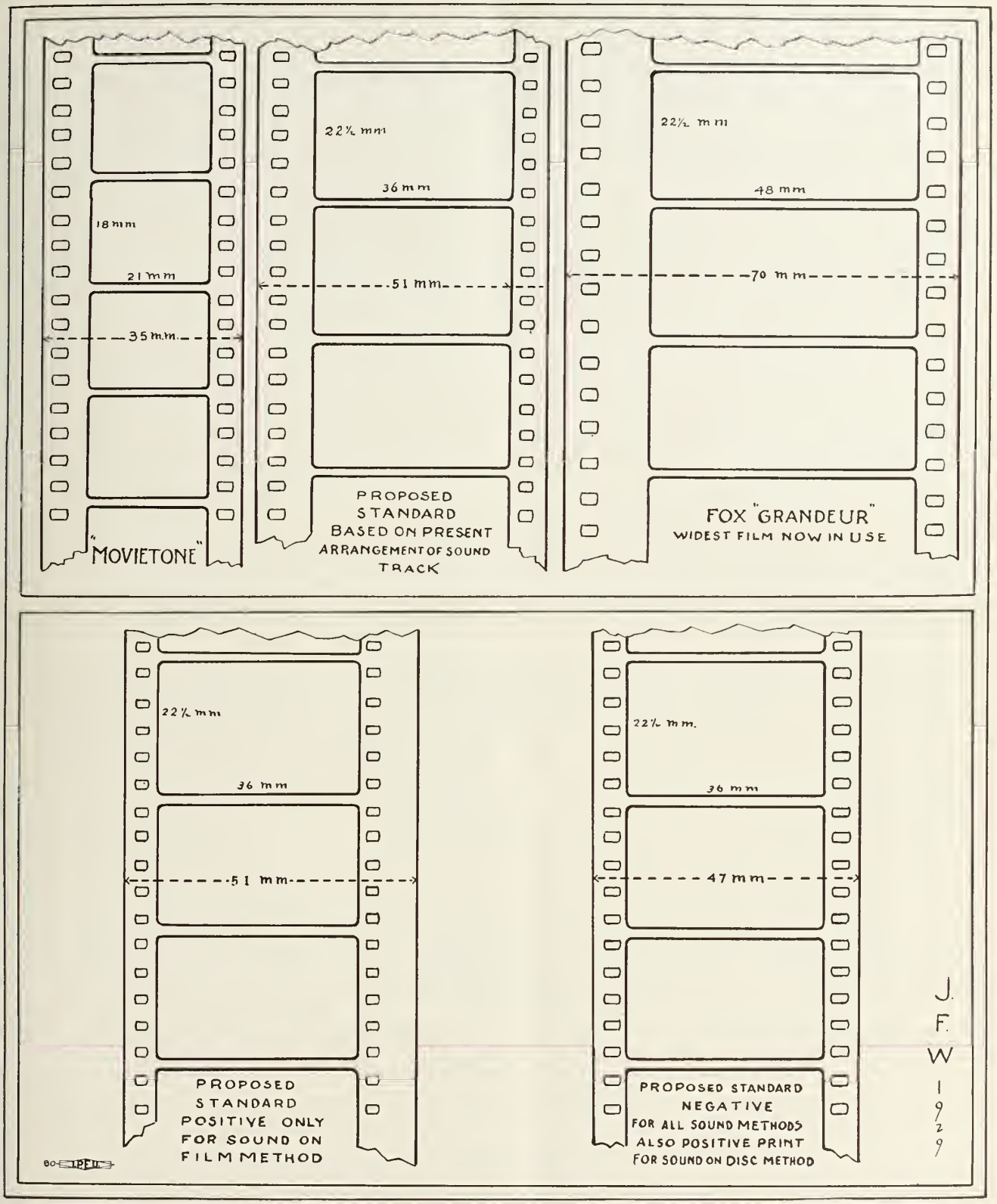
The greatest obstacle to standardization is the fact that sound on film systems obtain a smaller picture and a different shaped picture than sound on disc systems due to the presence of the sound track on the film.

The remedy for this may be to place the sound track on the outside of the perforations where it cannot lop off part of the picture.

In this way the sound track could be non-existent so far as all negative is concerned, being optional in the positive only, according to the system in use.

Systems requiring a sound track could use positive film having extra space on one side outside of the perforations. If something like this could be worked out the width of the negative film could be reduced to 47 m.m.

Whatever the ideal picture aperture and size of film may be, however, it will take co-operative action of a high order by the whole industry to put it over. The industry cannot ignore the situation for wide film is here to stay. Wide film is bound to be exploited competitively for its own sake at first just as sound has been, but the true measure of its worth will lie in the use to which it is put.



It must be expected that every possible attempt will be made to retain the 35 mm. film, even to the point of using it sideways to get a picture twice the present size. It would be an advantage undoubtedly to be able to retain present equipment wherever possible, but money saved in this direction would hardly be worth while unless justified by the results on the screen. That, lads and lassies of Cinemaland, is what counts.

Whatever the ideal standard may be, however, it will take co-operative action of a high order by the whole industry to put it over. Wide film cannot be ignored because it has too great a competitive value. Theatres will want it for the sake of novelty at least, but to allow wide film to develop merely as a novelty or freak and therefore as an accessory to existing standards, would only increase the confusion. Wide film has a noble mission; its possibilities must not be thrown away.

Pertinent to Paramount

Brulatour's, Inc., represented by Messrs. Blackburn, Hughes, Gibson and Courcier, injected some new high-lights in their development of Eastman No. 2 by being host to the P-F-L Camera and Laboratory boys at a big "out-under-the-trees' dinner at the Uplifter's Ranch on Friday evening, June 28th.

Needless to say, production was at a standstill at the studio during the evening (thanks to several directors) and film imperfections were at a minimum the following morning—sure! Frank Garbutt and Ray Wilkinson never pass up bets like that. And the next morning, several of Virgil Miller's boys were still making "double-exposures" with a single lens and complaining that the ground glass in their cameras was "out-of-focus."

It's too bad that lack of space forbids individual mention of the film-destroyers and steak eliminators there assembled—Archie Stout still maintains that the mushrooms on his steak(s) were spherical aberrations—Harry Merland refusing a glass of water with the remark that he was thirsty and not in need of a bath—Bill Rudolph singing—Frank Garbutt dusting off his clothes—George Gibson's "won't you have another of this or that" (mostly that)—the clink of gl—I mean—funny noises—Courcier eulogizing DuP—er—Eastman No. 2. And after the "eats" that old bromide (a word for the lab. men) about "Rolling bones gather no dross" emphasized the silver "high-lights" seen dimly through the film that some of the alibi-ers claimed to be Santa Monica "fog"—wish I had my silver (and paper) high-lights back!

Anyway, if the aforementioned hosts can parallel their steak-dispensing efforts with film-disposing accomplishments, their work will not have been in vain.

* * *

Charles Lang has been promoted to the supervision of the Milton-Arzner production, ably seconded by the following embryonic supervisors: Pyle, Pittack, Blackstone, Fapp, Wright and Martinelli.

Henry Gerrard is studying color charts, rainbows, assistant cameramen's socks, second cameramen's new cars, and sundry other hues, in preparation for the Berger production now in preparation, which will be done in Technicolor, as well as in black and white.

* * *

Eddie Cronjager has been in "Fast Company" with Eddie Sutherland's baseball opus featuring "Skeets" Gallagher and Jack Oakie—I'll say that's fast company—"Skippy" Burgess held them down a bit, being self-appointed "sergeant-at-arms" in charge of the "timing" squad. Eddie is now shooting with Mel Brown on "The Love Doctor," featuring Richard Dix.

* * *

Harry Fischbeck has been doing the pick-ups recently, while preparing for the next Clara Bow production, "The Saturday Night Kid," to be directed by Eddie Sutherland.

* * *

Al Gilks feels like a school kid once more, as the picture he is now making centers about college life and football and "Lovers' Lane," and, well, whatever they do in college—

* * *

Vic Milner's efforts to survive the long hours in Mr. Lubitsch's "The Love Parade," are going to be crowned with success unless the unexpected happens, as he is nearing the middle of the production and has lost only ten pounds and accumulated only eight grey hairs above each temple.

YOU CAN'T BEAT A SURE THING

Brother Ira B. Hoke, while on location in the Sierras, saw the director of his company carefully pace the distance from the clubhouse steps to a certain stone. After dinner, said director led the conversation to the clearness of the atmosphere in the mountains, giving a deceptive impression of distance. He even offered to bet ten dollars that he could guess nearest the number of paces a stone he pointed out was distinct from the clubhouse steps. Brother Hoke obliged, and guessed fifty-six. The director stated that he thought the stone was thirty-eight paces away.

"Oh hell," exclaimed the director as he paid the wager. "I would have sworn that rock was thirty-eight paces from the steps!"

"Well," replied Brother Hoke," it was last night, but I happened to see you pacing off the distance—and moved the rock."

P. S. Brother Hoke is not working for the same director now.

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Thunder	M.-G.-M	Henry Sharp
Dangerous Curves	Paramount	Harry Fishbeck
She Goes To War	United Artists	Tony Gaudio
Last of Mrs. Cheney	M.-G.-M	William Daniels
Square Shoulders	Pathe	David Abel
Street Girl	R. K. O.	Leo Tovar
Half Married	R. K. O.	Jack McKenzie
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Generalship on a Sound Set

Surpassing in size any set ever constructed for a talking motion picture, the concert hall sequences in "Lummox," an all-dialogue, all-sound screen version of Fannie Hurst's novel, recently were filmed and microphoned at the United Artists studios as the great climax in Herbert Brenon's lavish production.

A battery of twelve cameras in sound-proof booths and scores of microphones, photographed and recorded the action on the vast set. The stage and auditorium of the concert hall took up every bit of space in the world's largest talking picture building—225 feet long, 132 feet wide, and 73 feet high. An army of technical experts and carpenters worked more than three weeks to build the concert hall, which was designed by William Cameron Menzies, art director for the Joseph M. Schenck organization.

A seventy-five piece symphony orchestra, under the direction of Dr. Hugo Reisenfeld, one of America's best known musical conductors, played for an audience of several hundred extras, who were well paid for listening to an all-day concert that ordinarily would have cost them perfectly good money to hear. The concert figures in the plot of "Lummox" when the title character (Winifred Westover), a servant girl, sees her son (William Bakewell), for the first time since childhood in his triumph as a pianist.

Brenon directed the big scene from a vantage point in a glass-enclosed cupola that surveyed the whole area of action. He kept in constant touch with his cameramen, directorial assistants, sound engineers and Dr. Reisenfeld by means of a specially constructed telephone system. Although the scene will occupy only a few minutes' time on the screen, it required from 8 a. m. to 9 p. m. to complete, before Brenon was satisfied with the sound and action.

"Playbacks"—the studio term for reproduction of sound through loudspeakers a minute after the scene is microphoned—enabled the company to immediately hear the orchestra and the applause of the studio audience just the way audiences will hear them in theatres during the showing of "Lummox."

(*See Opposite Page*)

STUDIO OUTFITTERS MERGE

Company With $67,000,000 Capital Formed to Take Over Concerns Making Equipment

(Press Dispatch from New York).

Formation of General Theatres Equipment, Inc., to effect a $67,000,000 combine of manufacturers and distributors of motion-picture equipment and theatre supplies was announced today.

Important units in the consolidation are International Projector Corporation, which produces over 75 per cent of the motion-picture projectors used throughout the world; National Theatre Supply Company, which distributes equipment and supplies through thirty stores spread throughout the United States; Grandeur, Inc., which will distribute, service and lease projectors; Mitchell Camera Company, which makes cameras for both silent and sound pictures; J. E. McCauley Manufacturing Company, Hall & Connolly, Inc., Strong Electric Company, and Ashcraft Lamp Company, which manufacture substantially all of the projection lamps used in theatres, and Theatre Equipment Acceptance Corporation, a financing company.

The new corporation now has control of International Projector and National Theatre Supply, and has made an exchange offer for the stock in those companies which it does not yet own. The new concern will acquire all of the stock of Theatre Equipment Acceptance and 50 per cent of the stock of Grandeur, Inc., which will acquire the business and assets of Mitchell Camera. General Theatres will take over all of the business and assets of the remaining companies in the merger.

The new organization will manufacture and market several new and revolutionary devices, prominent among which is a new projector which gives the illusion of a third dimension.

SPORTS

Brother James R. Palmer, assistant to Business Representative Howard Hurd of Local 659, has been appointed chairman of the Sports and Entertainment Committee and will hereafter carry a column in this magazine under the heading of SPORTS. He opens thusly:

Come on fellows and put those Plus Sixes to the use for which they were intended. That much talked of golf tournament of Local No. 659 is about to make a landing so lets clear a field for it. This is no endurance contest to see which of you can hold out the longest.

Bring or send in your entries along with one qualifying scoro card. Qualifying rounds can be played on any course of par 71 or 72, and must be played with a brother member of this organization with his signature attached for verification. Entries will close August 25 to allow time for handicapping. Any member holding a P. G. A. handicap will not be required to hand in a qualifying score card. Also no refund on entry fees which will be kept to a minimum.

Any member, in good standing with this organization is eligible and I'll check the cards on the location so as to make all the boys feel at ease during the game.

Prizes will be awarded by various film concerns. There will be a Perpetual Trophy to stay with the organization and the winner of each annual tournament will have his name inscribed thereon. There will be other valuable low gross, low net and foursome prizes, including special prizes for those digging up the most turf and a dandy prize for the strong man able to make the most strokes.

Don't you timid fellows hide in a corner thinking this is an all pro. game, for it is not. I will also assure on Sunday, September 1st, the date decided upon, of a gala time, whatever that is.

The Golf Committee consists of Reggie Lanning, Ira Morgan, William Foxall, Johnny Miscal and William Snyder. I also come in here somewhere.

Professional Golf Association rules will be followed in handicapping, also counters attached to all clubs. All guns will be barred and no magnetic balls used on the greens.

I'll have all the dope, as to location of course, entry fee, etc., in the September issue so don't hold up the parade. Get your name and score cards in to me at this office as soon as possible. Let's go.

P. S. (Pretty soon) Want to get in touch with all baseball playing members. Call me up boys.

A MASTER OF EMULSIONS

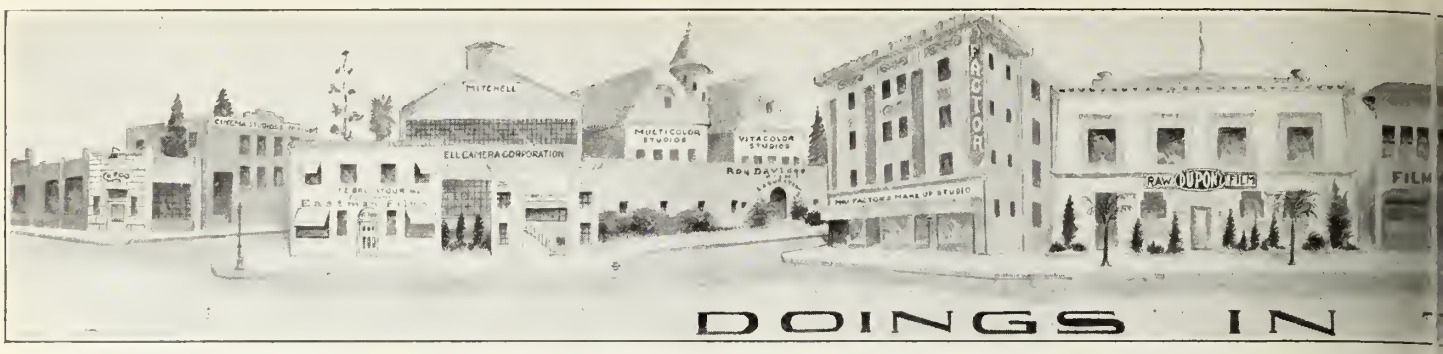
(Continued from Page 8)

When Col. Stuber went to Kodak Park, he found there a community of not exceeding sixty-five workers. Today this group has expanded into an army of over seven thousand and there are in the entire Eastman organization upwards of 23,000 workers including the employes of all the Eastman stores, traveling salesmen, etc.

Col. Stuber is easily as big as his job—big as that is, but the biggest thing about him is his spirit of fairness in his attitude toward all men and in his delightful unassumingness. Hollywood likes him and he will be welcome whenever he has time to run out and look us over.



Top: A remarkable photograph made in the Monitor room of the world's largest talking motion picture stage at the United Artists studios, Hollywood, and looking down on the biggest set yet constructed for an all dialogue and sound film. The scene is for "Lummox," Herbert Brenon's production adapted from Fannie Hurst's novel. On the set is a seventy-five piece symphony orchestra being conducted by Dr. Hugo Reisenfeld, and an audience of several hundred persons who take part in the action. In the monitor room, a glass-enclosed cupola overlooking the vast sound stage 225 feet long, 132 feet wide and 73 feet high, are Douglas Fairbanks (left); Brenon, who is directing the scene by the aid of a telephonic system; Dave Forrest (kneeling), monitor engineer, and Howard E. Campbell, chief recording engineer at the United Artists studios. Fairbanks left rehearsals of "The Taming of the Shrew," his first co-starring talkie with Mary Pickford, to be Brenon's guest during the shooting of the most spectacular sequence in "Lummox". This photograph, made by Kenneth Alexander, is regarded as one of the most unusual feats in the history of still photography. To shoot the scene from the monitor room it was necessary to photograph through five thicknesses of heavy plate glass, light the set with hundreds of powerful incandescents, devise a special system of lighting for the figures in the foreground, and make allowance for an eleven-second exposure. (Middle)—Behind the scenes during the making of a talking motion picture, with the director guiding the action and voices on two sets—one that he cannot see—simultaneously by the aid of telephone and an elaborate signaling system. Herbert Brenon (designated by the arrow), is the director who devised this dual set plan for scenes requiring intricate photographic effects and synchronization of voices and action in his all dialogue production of "Lummox" for United Artists. In the scene version of Fannie Hurst's story, these two scenes which Brenon is directing must dove-tail into each other and be perfectly synchronized, and simultaneous direction was the only way to solve the problem. In the foreground are the large sound-proof camera booths focused on the players. Figure on stairs in semi-circle is Winifred Westover ("Lummox"). Close-up of Herbert Brenon, United Artists producer-director of "Lummox," all talking picture, directing the action and voices on two sets—one that he cannot see—simultaneously. Telephones and a signaling system enabled Brenon and his chief cinematographer, Karl Struss, Local 659, (right) to shoot two scenes, which dovetail together in Fannie Hurst's story, at the same time. The actress is Winifred Westover.



DOINGS IN

With this issue **The International Photographer** introduces to its readers that wonderful city known, to those who inhabit it, as TEK-NIK TOWNE.

Here abide that queer folk who do wonderful things in sequestered places—in laboratories and dark rooms, in noisy shops where lathes turn and in quiet rooms where men draw strange figures on great sheets of paper, etc., etc.

These are the folk whose name is never celebrated in song and story, whose names are never seen in the credit titles, whose existence the fan and even many of the studio workers know naught of, but without whom there would be no motion pictures.

It is of this strange folk, their work, their products, their doings, their dreams, their plans and purposes, that "Doings in Tek-nik Towne" will tell and, henceforth, this will be a feature of **The International Photographer**.

The editor in charge of this department beginning with out September issue, will be Mr. Kameravitch Tripodoffsky, of Petrograd, a member of the Soviet, who came to Hollywood to make a study of the technical side of the cinema. We are sure our readers will welcome Mr. Tripodoffsky and THE DOINGS OF TEK-NIK TOWNE.

Albert S. Howell of Bell & Howell, Chicago, has been elected an honorary member of the American Society of Cinematographers.

NEW CAMERA

Enrique Vallejo of Hollywood, and Gabriel G. Moreno of San Ysidro, Mexico, announce the perfection of a camera and projector which they claim will, if generally adopted, eliminate most of the griefs caused by camera imperfections and by projection woes, especially eliminative of the problems growing out of the advent of sound.

The principle of the camera and projector was discovered by accident, but it has required five years to work out its application to perfection. Hazard & Miller, patent attorneys, Central Bldg., Los Angeles, are handling their affairs.

For the camera, Mr. Vallejo, who is a member of Local No. 659, claims an equipment that will cost so much less than standard professional cameras that it is hardly believable, and the weight, tripod and all, will not exceed thirty-five pounds.

That the camera movement is continuous and it eliminates both the intermittent and the shutter.

That because of the continuous movement the exposure gains in intensity, and that whereas in the standard professional camera second of a second, in the Vallejo camera the exposure is just twice that, or one-sixteenth.

That sound may be recorded on the same frame upon which the object is photographed. That having continuous movement the camera is absolutely noiseless. That the camera is also a speed camera, capable of 220 exposures per second.

In the Vallejo continuous projector which also costs far less than standard equipment, only two sprockets and two idlers are used whereas in the standard eight or more sprockets and tension springs are necessary.

The Vallejo projector eliminates all flicker and gives twice the projection value with far less light and practically no heat. This projector will also run standard 35 m.m. film with the continuous movement.

TECHNICOLORINGS

"Rio Rita," the new RKO feature with Bebe Daniels and John Boles, features a long list of 659 talent among its staff of Technicolor and Black and White cameramen.

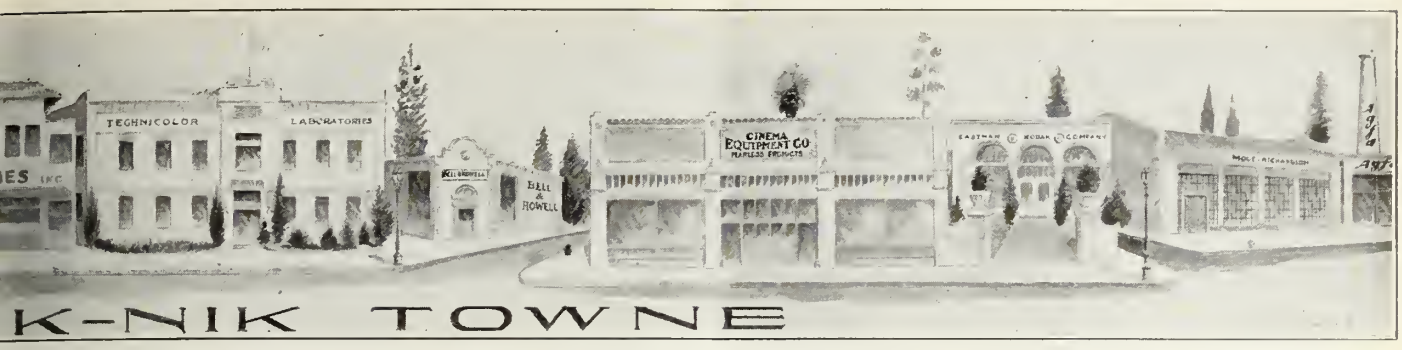
Under the guiding eye of Bob Kurrle the regular camera staff is as follows: Al Greene, Bob DeGrasse, Joe Walters, J. B. Shackelford, Bob LaPrell, George Diskant, Willard Barth, Ted Klett, Frank Titus, Paul Garnett, Dave Smith, Jack Thomas and Eddie Garvin. Nealson Smith at the still camera.

The Technicolor sequences were made under the supervision of Howard Green, while Earl Stafford, Ira Hoke, Chas. Geissler and Robert Tobey operated the color boxes.

Joseph A. Dubray, Manager of Technical Service, announces a great expansion program on the part of the Bell & Howell Company, at Chicago. A new Engineering Building will be in operation very soon which will enable the company to increase the volume of personal service to cameramen.



Here they are. The greatest galaxy of cinematographic talent (present and to be) ever shot in one group. This panorama was made at Universal in the heyda lot of brass collars were invited to a mighty feed. But this was all—just invited, for Al Siegler and Harry Gant st



The new set which Smith & Aller have erected in the new DuPont Building for use of cameramen desiring to make test shots has been dressed and, at time of going to press, the lights were being placed by Mole-Richardson. This is one of the cutest tricks that ever happened in TEK-NIK TOWNE, and it should prove tremendously popular with cameramen. All you have to do is to go there and use it, boys.

News comes from Rochester that our old friend George Blair, for many years general sales agent of the Eastman Kodak Company, has been promoted to the position of manager of the cine film export department. Mr. E. P. Curtis, his successor, will fly from Rochester, arriving in Hollywood, July 25, to look over the field. Congratulations to both gentlemen.

The Mitchell Camera Corporation is comfortably settled in its new home out near the Beverly Hills. The new plant, which will be featured in an early issue of THE INTERNATIONAL PHOTOGRAPHER, is said to be one of the most efficient in the world.

Davis Factor of the Max Factor Co., has returned from his vacation and proved, by actual experience, that Factor's anti-sunburn, freckle and tan lotions delivered the goods 100 per cent.

The Technicolor camera department has been moved from the Cole avenue plant to the location on Seward Street, formerly the Tremont Laboratories. Practically the entire lower floor has been given over to the camera department. Besides ample storage and vault room the main camera shop is equipped with individual work benches and locker room for each cameraman.

Emory Huse, of Eastman, has returned from a two weeks' vacation in the Pacific Northwest. These Easterners have to begin exploring before they learn the name of the street they are living on.

M. S. Whitehill has been appointed to the post of manager for the Max B. Dupont Vitacolor Corporation. Mr. Whitehill was but recently with Cecil B. DeMille and begins his new duties with a background of achievement.

The Technicolor camera department which is under the direction of E. T. Estabrook, is without doubt the most complete and carefully designed shop of its kind in the profession.

The camera mantenance shop is fully provided with precision machines capable of rendering immediate repair service to the battery of cameras Technicolor now operates in the various studios. The machine shop is under the personal management of Henry Prautsch, chief machinist of the Technicolor Company.

Adjoining the camera shop a complete test developing dark room has been equipped to handle all camera tests necessary during the day's work.

Mole-Richardson furnished all the equipment for the filming of "The Medicine Man," eight hundred feet down in the famous Carlsbad Caverns. Nothing like "Inkies" for subterranean shots.

William Horsley, of the Horsley Laboratories, is making a great success of his filmcote process. His machines are always busy.

Max Factor reports largely increased sales of Factor products in foreign countries as well as throughout the United States.

E. O. (Eddie) Blackburn, Pacific Coast representative of J. E. Brulatour, Inc., distributers of Eastman raw stock, has something up his sleeve. Here are the facts—draw your own conclusion:

Mr. Blackburn, just as **The International Photographer** goes to press, purchased for J. E. Brulatour, Inc., lot No. 6708-10, a frontage of fifty feet on Santa Monica Boulevard by 150 feet deep. This parcel of ground adjoins on the west the new Eastman Kodak building.

He also purchased for the same account 100 feet by 137 feet deep fronting on Las Palmas Street, which location is immediately across Las Palmas from the main office entrance to Metropolitan studios.

And all E. O. did, when asked what J. E. Brulatour, Inc., purposes to do with all this real estate, was to look mysterious and reply:

"For further expansion."

Now what do you suppose this means?



hen it was not unusual for twenty-five or thirty units to be shooting at once. On the day this shot was taken there were big doings at Universal and a een sandwiches and Dal Clawson and his pirates stole all the bottled goods. It was the cameramen who dined..

The Magic of the Cutting Room

Gone is the day when a feature length motion picture could be cut in the "third story back."

It takes more than a single sprocket, a sharp razor blade and a pot of film glue, to cut the talkies.

Randolph Bartlett, editor of Radio Pictures, brings out some interesting facts about the sweeping change the talking picture has brought into the cutting rooms of the RKO studios.

"Construction of new sound-proof stages, muffling of cameras and elimination of the old singing arc lights are not the only physical changes brought into the motion picture studios by the talkies," says Bartlett.

"The need of new equipment for talking pictures has been particularly felt in the cutting room, a corner of the studio not often sought out by the publicity camera.

"Before the advent of the talkies," says Bartlett, " a motion picture could be cut and edited in the back parlor of a cutter's home. All he needed was his single sprocket, a razor blade and a pot of film glue.

"Now the equipment needed to cut sound pictures properly runs over $5,000 for each complete set of cutter's tools. The work is so complicated by mechanical needs, it must be confined to the studio cutting rooms.

"One of the first new pieces of equipment we added at the RKO was a gang sprocket. This is a rewind machine which can put on their separate reels, in the proper synchronization, several photographic takes with one sound track.

"An expensive but necessary addition to the cutting room is the numbering machine. This machine which runs automatically, numbers every frame on the sound track, and then, starting from a corresponding frame on the action film, numbers each frame of that film in order. The two films are thus matched to enable the cutter to pick out his synchronized takes more easily for the final double print.

"An invention which has been of great aid in the cutting room is the sound Moviola, a sort of portable projection machine.

"The action film passes through one side of the instrument, the sound track through another. The cutter can watch the action through the lens of the one side and, by a connection of ear phones, listen to the matched sound track."

Though more detailed and difficult to handle, sound pictures allow more latitude in cutting than the silent films, in the belief of Bartlett, who was chief title writer and editor of silent films on the old FBO lot, predecessor of the present RKO studios.

"No longer is it necessary to cut back and forth between closeups of two figures to show which one is talking. The sound track of one voice can come through on the action closeup of another. In long shots, the sound track can be changed around to get all sorts of effects—far more dramatic than the cuts of the old silent pictures."

The staff of the cutting room at RKO has been doubled by the sound picture, Bartlett concluded. Two and sometimes three cutters are required to cut one picture as against one in the silent film.

(See Opposite Page)

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(1) *Jack Kitchen, Rado Picture cutter, uses a lond speaker on his moviola, the cutting machine which is a sort of portable miniature projection machine that enables the cutter to see and hear, in synchronization, the takes he is working into a finished film.*
(2) *Randolph Bartlett listens to some rushes of "The Delightful Rogue," the all-talking Radio Picture, on the moviola which has proved a great aid to the cutter of sound pictures. The sound track is reproduced through the earphones as the action film passes under a magnifying glass on the stand.*
(3) *Action and sound are matched for the cutter at the RKO Studios by the numbering machine which stamps a corresponding number on each of the two films—the action film and the sound track. It enables the cutter of Radio Pictures to match his take easily.*
(4) *Jack Kitchen, of the editorial staff of Radio Pictures, shows the use of a gang sprocket, one of the new pieces of equipment that has been added to the RKO Studios cutting room by the talking machines.*

Our Brother Alvin Knechtel

May 24, 1901 - July 17, 1929



In Memoriam

TO the chronicler of current events in the public prints do we leave the story of Alvin Knechtel's passing into the Shadows, with all its pitiful details of tragedy, while our own sad duty is to contemplate the character of our departed Brother, to look into the desolated hearts of his loved ones and to offer what poor words of consolation we may.

Brother Knechtel was a casualty of the pictures—a sacrifice upon the altar of the gods of Thrill, that something in the photoplay that appeals to the greed of the showman who sees in thrill a spur to the jaded appetite of the entertainment seeker and, therefore, that which will bring the "click" to the box office.

"He was a slave to his work," moaned the young and lovely wife as the planes of his fellow birdmen, flying overhead, dropped their tribute of love upon his bier at the Little Church of the Flowers, where his broken form was laid to sleep.

"Asleep in Jesus, blessed sleep,
From which none ever wake to weep,
A calm and undisturbed repose
Unbroken by the last of foes."

Yes, a slave to work. There are many. There will be many more; that's the pity of it. We cameramen have seen others go. The line lengthens. First there was Gene Gaudio, then Billy Foster, Rudy Bergquist, Burton Steene, Traub, the news man, and now Knechtel.

Nearly always when a man slips into the Shadows, men will ask: "What did he leave?" Looking entirely to the material side of things. They should ask: "What did he take with him?" That is the all important consideration.

What did Knechtel take with him? The death of a hero; the fruits of the supreme sacrifice; a character decked with many virtues; belief in the immortality of the soul, and in the teachings of the Prince of Peace; a clean and unsullied life; the adoration of wife, parents and family; the love and respect of a host of friends, coworkers and acquaintances.

Surely a rich treasure to lay at the bar of God. Such a man needs not our tears. Let us rather rejoice that his was not an ordinary life and believe with him that, though Death come, it is swallowed up in Victory. Let us see him as:

"One who wraps the draperies of his couch about him and lies down to pleasant dreams."

For there, behind the Sunset, in that land of no farewells, our beloved Brother, who delighted to fly as the birds, may spread his wings and soar into the vast dome of Heaven without fear of the eternal Threat.

And so we leave his earthly form at rest there among the flowers by the little church in the valley and, having performed the last sad rites, paid the last tribute and said the last prayer—

"Come let us anew our journey pursue,
Roll 'round with the years,
And never stand still,
Till the Master appear.
"His adorable will, let us gladly fulfill,
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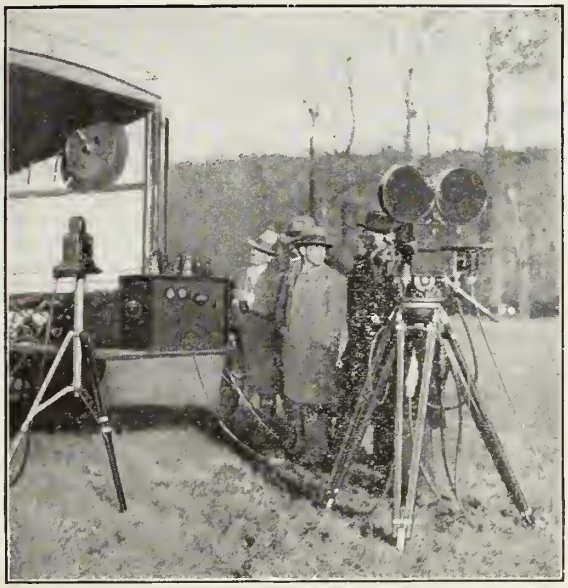


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This illustration shows the Akeley Gyro Tripod in actual use by the Western Electric Company, taking sound moving pictures.

Again AKELEY

. . . anticipated necessity
with a tripod ideal for Sound Pictures

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It was characteristic of the Akeley Company that its researeh laboratories had already anticipated this demand and were putting on the market sueh a tripod—a tripod quiet in operation, capable of great speed and flexibility, vibrationless but light, staunch yet easy to manage.

The Akeley Universal Gyro Tripod, containing the famous gyro mechanism, stands today a leader in this latest field of photography. This tripod is in constant use in many leading motion picture studios making Sound Pictures. These studios include Metro-Goldwyn-Mayer, Fox-Case Movietone, Pathe and Paramount. Other world wide corporations, sueh as Radio Corporation of America, Westinghouse Manufacturing Company, Western Electric Company and General Electric Company are enthusiastic users of the Akeley Gyro Tripod in their important work. We i vite you to write for full description of this Tripod and details of our deferred payment plan.

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—::—

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Pockets full of dough,
6 5 9 assistants,
Watch their money go.

—::—

Long Enough

Speed Mitchell: "Do you have to work long hours at First National?"

Russell Hoover: "No, Speed, only the regulation length, sixty minutes each."

—::—

Weather Note

Bartender at Bernies: "Goin' to have some rain, gents?"

Both Assistants: "No! Beer!"

—::—

Moon Madness

Chuck Geisler: "Girlie, you look like a million dollars tonight."

"Paris" Girlie: "Yes, and just as hard to make."

—::—

Generous

Frel Kaifer: "May I occupy part of your hammock tonight?"

She (sweetly): "You may occupy all of it. M. Hall and I are going to a dance."

—::—

Faith

659 Assistant de Lux: "Genevieve, do you believe in God?"

Genevieve: "Dad says I must, judging by the company I keep."

Courage

Jimmie Palmer: "And do you mean to tell me you laughed in the face of death?"

Elmer Dyer: "Laugh? I thought I'd die."

—::—

The Idea

Allan Davey: "Where do these scenario writers get their ideas?"

Eddie Linden: "What ideas?"

—::—

It Won't Be Long

First Assistant par Excellence: "What's the matter, my friend? Why the gloom?"

Second Assistant, (not so par): "My cameraman has lost his new hat."

First Assistant: "That's sad, but why should you worry?"

Second Assistant: "Because I was wearing it when he lost it."

—::—

So the 659 Assistant took his $50,000.

—::—

Economy

"See that guy over there by the sound stage?"

"You mean that bird that looks like a bag-pipe?"

"Sure. He just lost his job."

"Howzat?"

"Well, he's a Scotchman and he's too tight to give his negative full exposure."

OH, ELMER! ELMER!

Elmer Dyer confided this to Bert Longworth and Les Rowley: "I was shooting some stuff out at Universal the other day and when screened the shots showed up in soft focus. Upon examining my camera carefully, I discovered that a spider had woven her web completely over my lens."

Bert says that the spider's work was so perfectly done that the shots passed inspection of the supervisor and Elmer has adopted the spider as a pet. He is teaching her to spin webs on order and will have her put on the payroll.

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DOUBLE WIDTH FILM

(Continued from Page Six)

moves at only a slight increase in speed over the present film. However, with the Fearless Super Picture method there is a sound track provided that gives twice the length of the present sound track. This results in greater sensitivity because the sound record for each vibration is twice as long. This one factor alone is as vital as anything that has been advanced toward the improvement of film sound recording."

In conclusion, Mr. Fear says: "The double-width picture is coming. It is in swaddling clothes now; tomorrow it will have graduated to knickers, and then to long trousers, and it will not have to cry for recognition any more than did the talking picture. The producer, the exhibitor, the film laboratory, in fact everyone connected with the industry who has had his ear to the ground has realized that sooner or later the change-over to wide pictures must occur. With the Fearless Super Picture method achieved, the fear of having to scrap all of the present motion picture equipment is past, and we march on toward as nearly the ultimate in talking motion pictures as human ingenuity has yet devised."

"FLIGHT"

"Flight," Columbia's big air special dealing with the Naval fliers in Nicaragua is finished. Joe Walker had charge of photography while Elmer Dyer shot the cloud stuff. Joe Novak, Ira Hoke, Paul Perry and Lynn Dunn also were on the job. All the air stuff was shot at San Diego where the Government cooperated enthusiastically, placing nine ships at the disposal of Brother Walker.

"SENTINEL LIGHTS"

Charlie Boyle, first cameraman; Ben Ray, second; Frank Titus and O. H. Borradaile first and second assistants and Les Rowley, still artist, constituted the all-star camera crew which shot "Sentinel Lights" for Beacon Productions.

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The Daily Grind

By RALPH B. STAUB

Passed JACKSON ROSE standing on the corner of Seventh and Broadway with a loaf of bread under his arm—must have been waiting for the jam to go by.

* *

JOHN SEITZ says the new slogan in Chicago is—here today and gun to-morrow.

* *

Judge (about to announce sentence): "Where have I seen your face before?"

Vic Milner: "Why, I used to give your children saxophone lessons."

Judge: "I now sentence the prisoner to life imprisonment."

* *

JOHN MESCAL says some men are born crazy, others become cameramen and some even take up saxophone.

* *

HERMAN SCHOPP lives in a hotel where three rings mean ice water, two rings means a call for the bell hop and a ring around the bathtub means Saturday night.

* *

BOB KURRLE told me that Scotch friend of his invited him to a $10 a plate dinner, but Bob was on the 17th day of his 18-day diet.

* *

BILL HYER now lives at the Ritzmore, where they have cracked pillars from Rome and broken arches from Boyle Heights.

* *

Merrit Gerstad says the sound booth is a great thing for the cameraman who used to Yes his director.

* *

When BEN REYNOLDS was born, five storks died of exhaustion.

* *

FOOLISH FABLE: Once upon a time there was a cameraman who No-ed his director. He's driving a laundry wagon now.

* *

SOL POLITO to his young son—"What is a six-inch lens?"

Son—"Something that brings you $5 a day extra."

* *

IRA HOKE says life's a funny proposition and quotes:

"June, 1925—Producer to cameraman after camerman had been working day and night for many weeks: 'Hurry and grab a sandwich, we're working again tonight; now step on it'."

June, 1929—Same producer and cameraman. Producer to cameraman who has been working less than eight hours for some time: "We have a few shots to do tonight, but if you don't feel like it we can postpone them until tomorrow. Come up to my house and we'll have dinner."

* *

LEN SMITH says marriage is like a mousetrap, easy to get into, but hard to get out of and the husband is the piece of cheese.

Played Peeping Tom and looked into Dan Clark's window and saw his wife trying her newly made dress on Dan. Looks like he's a model husband.

* *

RAY RAMSEY is musically inclined. He was born with a violin in his hands and a bow in his legs.

* *

DICK FRYER says that grounds for divorce is generally at lot of dirt.

* *

MAX ELLIOTT wants to know what's become of the cameraman who used to wear puttees and have his cap turned around. I told Max he was replaced by the Hollywood Tam.

* *

JIM VAN TREES says that most people owe themselves so much that they never pay anyone else.

* *

OTTO HIMM says believe it or not, but John Wright, the tailor who has two prices for one suit of clothes, has a salesman by the name of Serge Pantz.

I. A. T. S. E. Famous last words: "Are your dues all paid up?"

With the Pioneers



Meet Howard Oswald. The time is 1908. This still was shot at the old Kalem Studios in Glendale. The picture was "The Boer War," a five-reel feature employing 2500 people in the battle scene. It required twelve days shooting to get it in the box with only one day of sunshine.

The camera was the first of the old wooden box Bell & Howells with 200 foot magazine. Goerz Hypar F-4.5 lens and K & E Tripods.

In those days there were no re-takes. Howard says that in seven years he didn't shoot a single re-take. Also he was his own assistant, script girl, continuity writer and still man.

All negatives were shipped to New York for development and prints and Howard tells us that when he sent in his first close-ups the lab. wired back that the cameraman was cutting off the legs of his actors.

TO MEXICO

Jules Cronjager has gone to the City of Mexico to shoot a special feature for a Mexican organization. Jules expects to be away several months—in case he likes the job. His equipment included 50,000 feet of Eastman film, 20 dozen stills and a Bell & Howell camera.

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Hollywood's First Color Camera



Top, first motion picture studio still department, "photograph gallery" and laboratory in California, located at Alimitos and Sixth Streets, Long Beach, Calif.; later a part of the old Balboa Studio plant. (2) Erique Vallejo, builder of first color camera in Hollywood. (3) Street in Clune's "Ramona," lighted entirely by the old-style incandescent lamps. The first set in Hollywood to use 100 per cent incandescents.

When the history of color cinematography is written it will record that the first color motion camera was built in Los Angeles and that the first color pictures (scenics) were shot here, the builder of the camera and the officiating cinematographer being Bro. Enrique Vallejo, one of our Hollywood pioneers in cinematography and an artist in his line.

Senor Vallejo is of Spanish descent and a scion of that Vallejo family widely known and honored both in California and Spain. It is this background that has made him so valuable as an advisor to producers in the making of pictures having a Spanish flavor in locale, language or costuming.

Senor Vallejo began pioneering with his camera away back in 1904 when he shot his first picture for the screen in the form of scenics, at the time being in the employ of the Lumiere Co. of France.

His first big picture, and in fact, the first fourteen-reel picture to be shot was William Clune's "Ramona." This also was the first feature length picture to be lighted with incandescent lamps and the accompanying illustration is the reproduction of a still of the "Main Street" in "Ramona," which was lighted by incandescents exclusively.

This picture Senor Vallejo shot with a Lumiere camera, a fabrication with four 200-foot magazines inside the box.

It was in 1912 that Vallejo went in for color and for this work he built his special camera which he called a "Leograph" and with it made history by shooting the first scenics in color on the West Coast. The shots were made near Sawtell and were first run in Clune's theatre on Main and Spring Streets, Los Angeles under direction of Lloyd Brown, manager for Clune and widely known throughout the industry as an expert in lighting.

Senor Vallejo shot the first commercial talking pictures, by the De Forest Process, in Mexico City, and was the first cameraman in Hollywood to use incandescent lamps for all interiors in a feature length picture.

This was at Brunton Studios, the picture being "The U. P. Trail," produced by B. B. Hampton. Walter Strong, head electrician at that studio, rigged up the lights. The picture was a success and the photography and lighting were enthusiastically approved.

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Illustrating Multicolor

BY

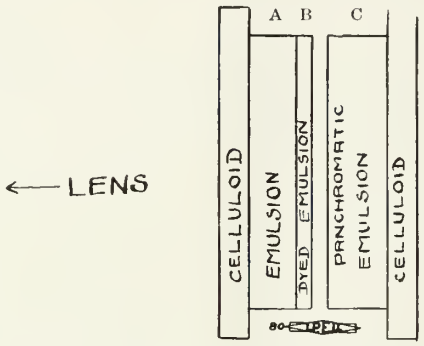
W. T. CRESPINELL, *Technical Advisor for Multicolor*

THE present multicolor process is a subtractive two-color method of color photography. All methods of color photography are divided into two classifications and two only, namely, "additive and subtractive. In additive processes the colors on the screen are obtained by the addition of a varied colored revolving disc. In subtractive processes the colors are visible on the film itself and require no additional means for projection. The multicolor process comes under the second classification.

The camera used for recording the multicolor negatives is a standard Bell Howell or Mitchell. The only added requirement to a standard camera is a special multicolor magazine which accommodates the multicolor negatives. Two negatives run through the camera at the same time with their emulsion surfaces adjacent to each other.

Referring to Illustration No. 1, the method of obtaining color value negatives by the multicolor process is illustrated as follows: "A"-"B" represents the front of the two negatives, and "C" the second negative. "A" is a negative which is sensitive

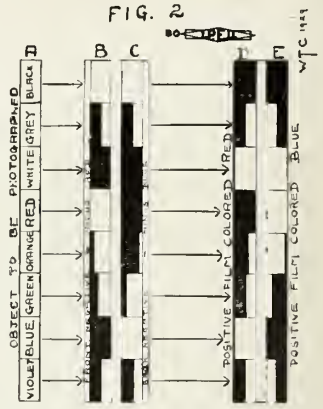
FIG. 1



to the green-blue end of the spectrum. "C" is a Panchromatic negative, that is, a negative that is sensitive to the whole range of the spectrum. Incorporated in emulsion "A" is a dye which penetrates only a small part of the thickness of the emulsion and is represented as "B". The color of this dye is orange-red and is equivalent in its photographic use to a Wratten filter No. 23A.

Referring to Illustration No. 2 B-C, the chart shows how various color values are recorded onto these two respective negatives. The front film records the colors of the green-blue

FIG. 2



A. Represents the colored object to be photographed.

B. Represents the multicolor or front negative and the color values recorded thereon.

C. Represents the second or back negative and the color values recorded thereon.

D. Represents one side of a strip of double-coated positive film with a print from negative B. This positive is colored red.

E. Represents the opposite side of the positive with a print from negative C. This positive is colored blue.

end of the spectrum, and the filter incorporated in the emulsion of the

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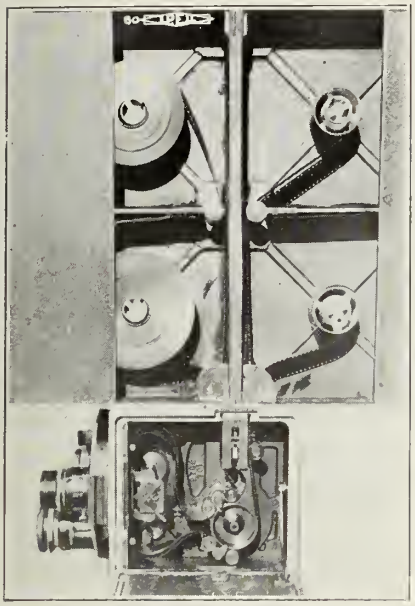
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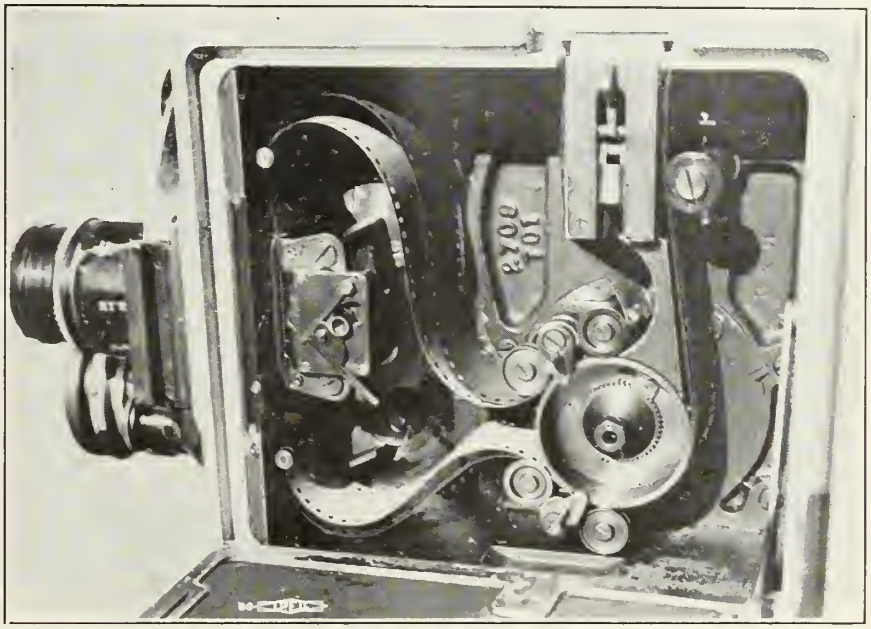
front film eliminates from the back film the colors to which the front film is sensitive. Since no prisms are used in the camera, perfect register of the two images is assured. The



present multicolor positives are on double-coated positive films. Incorporated in the emulsion on either side of this double-coated film is a yellow die. This dye prevents penetration of the images in printing onto the opposite side of the film.

Referring to Illustration No. 2, D-E the positive values which are printed from the pair of negatives are illustrated. I have purposely put in violet because there is some confusion as to what happens to the colors of violet, heliotrope, mauve, and similar shades in a two-color process. Since violet is composed of a certain amount of blue plus magenta, the color of violet is equally recorded on both of the pair of negatives and, likewise, is equally recorded onto the positive film. The combination of equal densities of the positive film gray and to record the color of make gray and to record the color of violet it is necessary to use a three-color method of photography. The images of the positive film are printed in register, developed, fixed and washed, and are then ready for the final operation of coloring. All colored positives of the subtractive

(Continued on Page Thirty-four)



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Vitavox-A Sound Recording System

BY

T. A. MILLER, *Sound Engineer, Vitavox Corp.*

The commercial application of sound recording has grown up over a period of thirty years in the phonograph industry. However, its sudden application to the picture industry has given it an exaggerated importance which is not justified by the facts. The "medicine men" of the electrical industry have swept down on the "natives" of Hollywood with their little bag of mystery tricks and carried off the spoils.

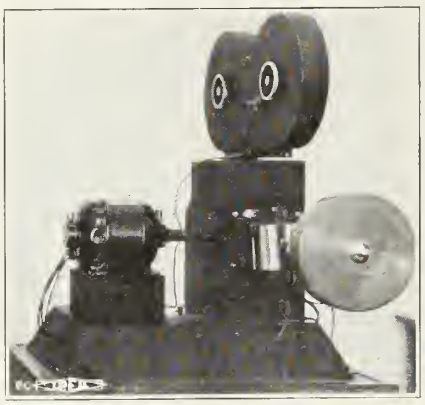
At the present time there are three methods of recording in use at the studios—variable area sound track on film, variable density sound track on film and disc or phonograph recording. The variable area system is used by R.C.A. and Vitavox; variable density by Fox Case, Western Electric, Powers and DeForest; Phonograph or disc is used by W. E., Victor, Telefilm, Qualitone and several others who are starting up.

During the early stages of talking pictures all of these systems will flourish, however it will not be long before it is a case of survival of the fittest. Much has been written regarding the general theory and operation of these systems, but very little has been written about the troubles which have been encountered; it has all been verbal, but if it were written down it would make many volumes. As the phonograph or disc recording can only logically be considered as a temporary expedient in the talking picture industry any further remarks will be confined to film recording methods.

All methods of recording require a satisfactory amplifier. The space on the edge of the film allotted for the sound track is the same for both methods and has varied from time to time from as high as 125 mills down to 70 mills in width; any width between these limits is satisfactory for either system.

To obtain the variable density record a source of light is projected through a slit and focused on the film as a fine line of light covering the full width of the sound track. This light passes through a light valve which resembles the human cords. The electrical impulses which operate the light valve cause a fluctuation in the amount of light which passes. These fluctuations are photographed on the film as variations in light and shade. It will be seen that the tone to be produced will depend on the number of fluctuations per second while the volume will depend on the contract of light and shade.

For good recording the light variations should be directly proportioned to the sound variations, but for tone variations it must follow an exponential function which is not unity. The conditions to be met in this recording system are very severe and all factors must be perfectly co-ordinated. The natural frequency of the light valve must be above the recording range, the amount of light must



Exterior view of the Vitavox Recording Unit.

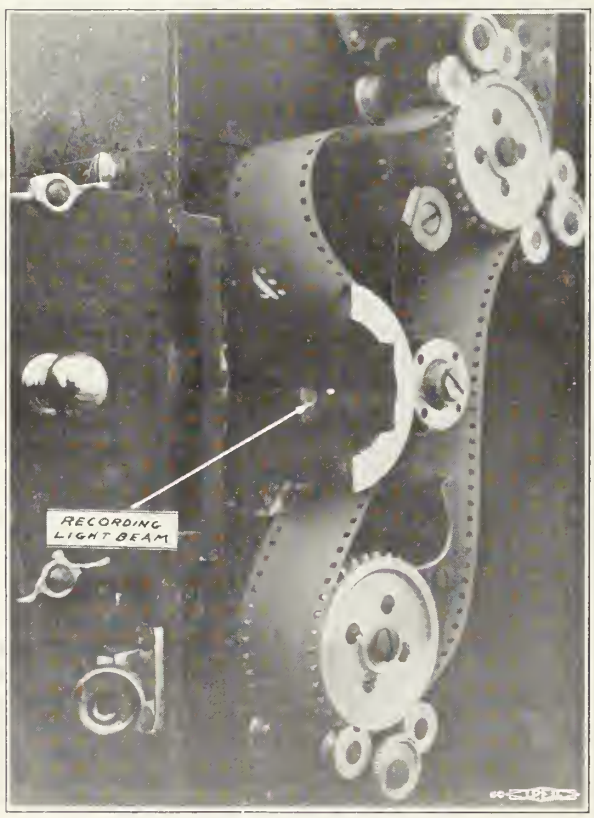
be exactly right for the correct film exposure, the development of the film must be brought to a definite limit both for the negative and positive print.

The difficulties encountered are improper exposure, light refraction on the edges of the light valve, improper characteristics for tone variations, film irregularities, variations in developing and printing and later the collection of oil and dirt on the sound track.

In listening to the reproduction from the recording, the noticeable effects are distortion of the higher frequencies, described as fuzzy, raspy or harsh, lack of bass and change of tone or pitch from one scene to another, also increase of surface noise and impaired quality due to collection of dirt on the film after short use.

The variable area recording is obtained by two methods, R.C.A. and Vitavox. In the R. C. A. method the light is taken through a slit onto a movable mirror and from there onto the film with proper lenses. The source of light is not critical and can be set at any valve above that which will give full exposure of the film. The length of the line of light on the sound track is varied by the mirror and the record produced is of saw-tooth shape or an oscillograph record.

There is nothing critical in the method except the rotating mirror which is supported by two fine wires which are very easily broken to produce satisfactory results for talking pictures. Five thousand cycles must be recorded; this requires that the light line must not occupy a space over one and one-half mills. Here we must also consider the refraction of the slit edges, the diffusion of the mirror and the revolving power of the lenses. These factors all militate against correct recording of overtones. In analyzing reproduction from these records note the perfect base but lack of distinction in characteristic overtones.



Inside of Vitavox Recorder showing the Light Beam.

There is nothing critical about the development and printing of these records and double printing offers no obstacles.

The Vitavox method is the simplest and most direct of all. In image of the light source is forced directly in the film utilizing the maximum resolving power of the finest lenses. In addition to this the image is sliced obliquely in two by a razor edge giving a light line nearly twice as fine as it is possible to obtain by any other method. The light valve is the razor blade. There are no critical parts to this system and the light valve cannot be injured. It is the only system in which the percentage of overtones to fundamental can be changed in the recorder itself.

On account of the over exposure at the sound track with the variable area method the collection of oil and dirt makes little difference, and a double print of this kind can be run hundreds of times with satisfaction; the sound track will last as long as the picture.

Shooting Under Ground



The marvelous caverns at Carlsbad, New Mexico, where "The Medicine Man" was photographed. The lighting was done exclusively with Mole-Richardson Inkies—18 inch Spots and Rifles. (1) Passage to the Queen's Palace. (2) King's Palace where much of the action was filmed. (3) Tom Santschi in the King's Palace. (4) The camera set up and principals in the drama. These caves constitute one of the new wonders of the world. They are owned by Uncle Sam.

Shooting Under Ground

Nearly 800 feet down below the surface of the earth is a queer place to shoot a motion picture, but Carlsbad Productions recently achieved the stunt successfully in spite of many handicaps.

The Carlsbad Caverns, located at Carlsbad, New Mexico, and now internationally famous, were selected as the principal locale of the picture and the King's Palace and Queen's Room, each more than 100 feet high and 150 feet square were made to constitute the "big set" of the production.

The Carlsbad Caverns are owned by the Federal Government and they have been so widely exploited that a continuous stream of tourists visit them daily. It was necessary, therefore, for the motion picture people to do their work at night.

M. A. Anderson, in charge of photography and lighting, with his assistant, Kay Norton, found it necessary to carry their Inkies and transformers down to the 785 foot level and a mile and a quarter from the entrance to the caves. Only Mole-Richardson incandescent lamps were used and it required a force of twenty-five men four days to put the lighting equipment in place.

The temperature of the rooms runs from 52 to 60 degrees and each room retains its normal temperature the year round. All the formations are limestone and are caused by the dripping of lime water. The stalactites and stalagmites grow one cubic inch in 100 years according to government estimates. Some of the rooms have water in them and most of this water is good to drink and ice cold, pleasant after a day in the desert at 110 degrees.

The cast of "The Medicine Man" included Tom Santschi, Blanche Mehaffey, Philo McCullough, Donald Keith, Reed Howes, Tom Murray, Billy Franey, Mark Hamilton, Ted Wells and Margy Keyes. Jock Irwin directed.

The motion picture people reported wonderful co-operation on the part of the Government's superintendent, Thomas Boles.

ILLUSTRATING MULTICOLOR

(Continued from Page Thirty-one)

method are either composed of dyed images or highly efficient chemical tones or a combination of both. Multicolor uses a combination of chemical and dye toning. The film after being developed is submitted to the blue coloring bath which transposes the silver image into a selectively colored blue image. The opposite side is then selectively colored red. The film is then washed, dried and varnished, and is ready for the screen.

As has been described, the multicolor process at the present time is essentially a two-color process. But if a third color was required to satisfactorily record the true colors of nature, then this third color, which would be yellow, would be selectively transferred onto either the blue or red side of the film. Due to the fact that the basic colors used by multicolor are of a certain opaqueness, it has been found possible to successfully reproduce sound from multicolor positives, the sound track being colored by either one of the basic colors used in the coloring of the film.

After the coloring operation, the varnishing of the film is of utmost importance since it prevents scratches and abrasions to the film and also insures the positive prints of much longer use than is possible with black and white prints.

All of the methods required in the production of multicolor negatives and positives are covered by patents allowed, patents acquired, patent license, and patents pending.

—o—

Only a cheat can hope for union benefits and deny the obligation of the Union Label.

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SILENT CAMERA HOOD



Mary Philbin, Featured Player.

Cameraman Charles P. Boyle, Local No. 659.

The accompanying photograph shows a new camera cover used in shooting sound pictures. It was designed by Mr. Al Mannon of Tec-Art Studios. It was used on a follow shot, passed within two feet of the microphone and no sound was recorded. It is lined with sponge rubber, felt and fiber and has an adura.um cover.

The loading side opens as well as the entire back and it is very accessible. The hood is mounted on the base of an M. and R. Sun spot and can be trucked around the set; can be raised or lowered when needed.

This hood was used by Charlie Boyle in his latest production, "Sentinel Light," for Beacon Productions. Mary Philbin and Edmund Burns were the featured players.

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Out of Focus



NEWS ITEM

Mr. Laemmle stated that at a cost of $360,000 the concern will build six Movietone trucks which will enable them to work twenty-four hours per day. This is not news. If he can build trucks that will work thirty hours a day, that will be news.

* *

Teacher—Give a sentence with the word metaphor in it.

Young Punk—Just metaphor hour guy going home and he was sore because he did not not get paid for eight.

* *

NEWS ITEM

There is a new movement among the Assistant Cameramen to eliminate the word "Punk" from the industry. They wish to be known as Students to the Profession of the Artistic Reproduction of the Latent Image upon Celluloid. The word "Punk" is defined as decaying wood. Many's the time I got a splinter from scratching my head. Still get them.

* *

Met Virge Miller the other day and did not ask him for a job. Yep! I was working.

* *

BEYOND RECOGNITION

Saw a Bell & Howell at Laskys the other day and I am sure that even Joe Dubray would not recognize it. It had everything on it except a Frigidaire and Rex Wimpy said he was thinking of having one installed real soon. It had a flock of dry cells, picture frame wire used as a belt, red white and blue connections (very best connections), a trick light wired in series with the foggie light. A cantilever super stressed idler, a motor placed where we used to put our good eye. A device that enables you to follow focus (if they hit the right mark). One lens on the front and remove the shuttle to focus. It only weighs 350 pounds, is mounted on wheels and has a hand crank with gears to raise and lower it. And still they say things have not gone ahead.

* *

IN THE SHOP

Fleet Southcott—This idler wont work.

Bill Groat—That's natural.

* *

POPULAR SONG

"You Were Meant for Me." As sung by the cameramen while gazing at the wage conditions, etc.

* *

AT LIBERTY

Otto Himm has just finished his contract and is now available.

* *

"Speed" Hall says that the studio should pay all doctor bills as he gets sick on company time, and can prove it.

His father is the Hon. Mr. Hall, J. P. of Exeter, England. Speed says that he can use the initials M.P. of Hollywood after his name. Not member of Parliament but Motionless Pictorialist.

* *

EQUITY

This page appreciates being read by members of the Actors Equity.

* *

THAT'S FINE. $10.00

One of the Brothers in good standing did not know how to play Kadunk. (I don't even know how to spell it). While the other Brothers in various standing were showing him how, in hopped the law. It seems as if you are not allowed to play cards in the cameramen's club. Any other club seems to be O.K. They are funny that way, out here. That after noon a couple of banks were held up and a few small robberies in homes, but they sure taught those Hollywood cameramen a lesson. By heck! Any how I wont mention Billy's name on account of the lady that answers the phone at his house, but he still says: "Some days you can't save a dime."

* *

SOLILOQUY

A man's best friend may be his mother but the film editor cuts quite a bit.

* *

PET HATES

The guy that says he knows nothing about pictures and proceeds to tell you what is wrong with them.

The editor that uses an out of focus exit in the release because you happen to wear a red sweater.

The star that tells you how beautiful Manny Scratch made her look and he hasn't shot her for ten years or more.

* *

(If you have a pet hate and it is not too hot, send it in and get credit. I was thirty days late with my copy last month—this happens in the best of families—so maybe I can get some ideas from the Brethren.)

* *

Some one made the crack that I got my ideas from College Humor. I should pay 35 cents for an idea.

Many a sound picture was discovered to be not so sound when released.

* *

LETTERS RECEIVED

Dear Mr. O. of F.: I belong to the I.P. of the P.L. Local 659 and we don't get a break on your page. Why don't you mention the News and Industrial men. Answer: I have never been a News or Industrial man but if you will send in a few feet I will see that it is properly developed.

Dear Sir: What does Mr. O. of F. stand for. Answer: Out of forder.

* *

Dear Mr. Out-of-Focus: I have a boy that will soon be kicked out of school and would like to get something for him to do. He is very lazy, but fond of beautiful things. Can you suggest anything for him to do? Answer: Make an Asst. Director out of him, but warn him about the "beautiful things."

* *

I WONDER

What became of the Klieg boys that made all the eyes?

What became of the Film Editors? It seems as if they decided to keep out of politics and Unions. Why not try again. It took us years.

What became of John? He started on the Boul. with a pop corn wagon and at one time had THE restaurant. He was was in a great spot for a Union Card in his window.

What became of all the megaphones?

What is the name of the little Red Head at Bennett's Lab?

What makes Bill Lye, our elevator operator, so cheerful all the time? (Bill used to be a plumber.) With the new style bath tubs they have no place to crawl under and go to sleep, but he can still get a few winks in that speedy car he slides up and down.

What does a roll of Pan think when they develop it for sound track?

* *

HIGH HATS STILL AT LARGE

The above photo was secured by us at great cost and is an actual photograph of the last two members of the High Hat Society. This was taken some place in the wilds of Burbank. You will notice that the distance between the ears is very great which enables the hat to remain on the head without slipping down over the eyes.

It seems as if this society had a plan whereby all lighting could be done from a monitor room and girls could operate the camera's. Also that all theatres would be closed in order to enforce this idea. Notice the unique twist on the right hand wrist. Copies of this photo can be had by applying at the twelfth floor of the Markham Bldg.

FROM ALASKA

Brother J. M. F. Haase writes from Juneau, Alaska, where he is located with the U. S. Navy that he is having a great time and wont be home until September.

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Official Bulletin of the International Photographers of the Motion Picture Industries, Local No. 659, of the International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators of the United States and Canada.

Affiliated with Los Angeles Amusement Federation, California State Theatrical Federation, California State Federation of Labor, American Federation of Labor, and Federated Voters of the Los Angeles Amusement Organizations.

Vol. 1 HOLLYWOOD, CALIFORNIA, SEPTEMBER, 1929 No. 8

"Capital is the fruit of labor, and could not exist if labor had not first existed. Labor, therefore, deserves much the higher consideration."—Abraham Lincoln.

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The International Photographer published monthly by Local No. 659, I. A. T. S. E. and M. P. M. O. of the United States and Canada

Howard E. Hurd, *Publisher's Agent*

Silas Edgar Snyder - - - - *Editor-in-Chief* Ira B. Hoke - - - - - - - - *Associate Editor*
Lewis W. Physioc - - - - - *Technical Editor* Arthur Reeves - - - - *Advertising Manager*
Charles P. Boyle - - - - - - - - *Treasurer*

Entered as third class matter February 13, 1929, at the Post Office at Los Angeles, California, under the provisions of Section 435½ Postal Laws and Regulations. Permit No. 1997

Subscription Rates—United States and Canada, $2.00 per year. Single copies, 20 cents

Office of publication, 423 MARKHAM BUILDING, 6370 Hollywood Boulevard, Hollywood, California HEmpstead 1128

The members of this Local, together with those of our sister Locals, No. 644 in New York, No. 666 in Chicago, and No. 665 in Toronto, represent the entire personnel of photographers now engaged in professional production of motion pictures in the United States and Canada. This condition renders The International Photographer a voice of an *Entire Craft,* covering a field that reaches from coast to coast across the nation.

The Sound Track

Labor Day Message

BY

JOHN J. MANNING, *Secretary-Treasurer Union Label Trades Department*

September second is the day this year which is set aside by legislative enactment, as well as accepted custom, to honor those who render service to society through manual labor. It is also the day upon which the organized workers of our country assemble to pay tribute and homage to the activities and memories of those who gave of themselves freely, in order that you and I, who have succeeded them might enjoy many of the blessings of life that were denied them.

The heroism and loyalty displayed by the pioneers of our great movement for the uplift of humankind are indelibly stamped upon the social, economic and moral progress of our country. Indeed, when the historian of the future writes of the past fifty years, one of the brightest pages will be that of the activities of our movement for human betterment.

But great as this service has been and deeply as it is appreciated, we cannot rest content with past achievement, but we should give the best that is in us so that the many pressing problems with which we are now confronted may be satisfactorily solved.

Abuse of the writ of injunction, unemployment, the shorter work day and work week, exploitation of child labor, improved and more humane compensation laws are a few of the problems that must be solved. And while they are great problems, they are no more difficult of solution in our day than were the ones which confronted our predecessors which were solved by them in their day.

Organization, education and publicity are the trinity, coupled with real cooperation, which will aid us more than anything else in their solution. Attendance at meetings; securing new members is real organization work; to inculcate a thorough knowledge of what our movement stands for in each and every member, is real education; to let the general public know what we stand for and the service we have rendered society by our accomplishment, is real publicity.

In cooperation with these activities we should let no opportunity pass which will cause American-earned money to be spent for American-made goods. How can this be done?

The American Labor Movement is the only movement in the world which uses the Union Label, Shop Card and Working Button to designate the product of its members or where they render service. By demanding that these emblems be displayed whenever we make a purchase of goods or service, we will be rendering real cooperation to all who are enrolled in the great army of organized labor.

The use of these emblems by any employer indicates that he is in harmony with our demand for industrial democracy. Industr ial democracy is founded upon a trade agreement, and it is only through such an agreement, under which the workers have an equal voice with the employer in establishing standards for conditions of labor, that this democracy is secured.

Let us, therefore, on this day dedicated to labor, resolve that if we have been negligent in our duty to the great cause in which we are enlisted, we will gladly assume our share of this work in the future, to the end that we will merit the heritage given us by our predecessors.

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THE UNION LABEL

Following are excerpts from an address given by William Green, president of the American Federation of Labor at the convention of the Union Label Trades Department at Los Angeles, California, in September, 1927.

"It is the duty of every trade unionist to demand the Union Label and the Union Shop Card. There are, approximately, in the different organizations of labor in this country, five million members. Now there are dependent upon these five million members many millions more, and we can reckon in a conservative way that these millions have friends outside of the labor movement who are sympathetic. None of them are opposed to us. They are not against us.

"If they would demand the Union Label upon the goods they purchase what a wonderful thing it would be. It would be much easier for National and International Unions to carry on their work. It would be easier for us to go out and spread the doctrine of trade unionism and of organization and to educate men and women as to the value and the service of our great organized labor movement.

"We want to make life worth living, not work, work, work, earning a meagre

(Concluded on Page 12)

Look for This Label



ON YOUR DAILY BREAD

When you demand this Label you are not only supporting the Bakery and Confectionery Workers, protecting them against the low wage, long hours, and inhuman conditions, but you are also protecting yourself and your family against the spread of disease-breeding germs which exist in unsanitary bake-shops.

The Union Label is not only a sign of wholesome, cleanly standards of manufacture, but it is a symbol of Americanism, as the Union Label appears only on American made products.

What of the Years . . . You?

[This editorial is called forth by a member of our Local who complained to the editor recently that he was afraid of old age.—Editor's Note.]

The man who lets the old age bogey get into his blood is lost.

He is beaten before he gets a start. He is left at the post.

Man power at every age is useful and I don't know anything more beautiful than a graceful old age.

Here is an illuminating story of Hollywood's grand old man, the late Senator Cornelius Cole.

Senator Cole passed away shortly after his one hundred and second birthday and we all know he was hale and hearty up to the last few weeks of his life. His mind was alert, his step elastic, his personality handsome and magnetic, his energy dynamic and his humor always on the job.

Ask him a question about some person or event seventy-five years agone and he answered instantly without groping among the thought forms of the past. He was "all there."

I had the honor of being a guest at the birthday party tendered Senator Cole on his one hundred and first anniversary and late in the afternoon I had an opportunity to talk with the Senator alone for a few minutes.

"Well, Senator," I said, "how do you do it? I might make up my mind some day to want to live a hundred years and I wish you'd tell me your recipe for longevity."

"Well, sit down here, young man, and I'll tell you the secret and you can pass it on to your friends. The first requisite is to get this firmly fixed in your mind and heart—old age is a MATTER OF CONSENT—purely and simply.

"You can't keep the years from passing. An all-wise Providence has arranged that, but you can keep them from breaking you to pieces. That's your business. Never consent to old age and you'll never be old. Old age and multiplicity of years are two very different things. The former is a state of mind."

The Senator knew and he demonstrated his knowledge in his own life. And when we have before us such careers as those of Chauncey M. Depew, Thomas A. Edison, Judge Gary, Charles M. Schwab, to cite a few examples known to us all, it is not difficult to conclude that the good old Senator was right.

There is no war 'twixt age and youth.

Both are a part of the Great Plan.

Both are natural and needful.

Let youth profit by the knowledge, experience and wisdom of age; let age profit by the energy, enthusiasm and enterprise of youth—so shall prosper the nations and so shall youth never grow old in the sense of weakness, dependence and unloveliness.

When we write of these things we naturally think of success.

What is it?

Is it not the attainment of the individual's social, economic, artistic and professional objective—or all of these combined?

Let no man be fearful because the years are passing.

Oscar Hammerstein, when asked to name his slogan for success answered:

"If at first you don't succeed fail, fail again!"

If you do not succeed on the first thousand trials then on the thousand and first you will go over. In the Treasure House within him every man old or young has the germ of success.

Let him never weary of the search.

It is the greatest of adventures.

"All shall reach the sunlit snows."

On this subject Henry Ford writes interestingly in a popular magazine for July. Mr. Ford begins by stating that if he could do so he would prefer to have all his employees between 35 and 60 years of age. "For then," writes Henry "we should have a stable and experienced force. We would not care how much over 60 the men were so long as they could do their work.

"Under no circumstances would we have a working force made up of only young men. It is absolutely necessary, in order to get the work through, to have a solid frame-work of older and more experienced men who know exactly what they are doing.

"It is not to be expected that a man of 70 will have as much endurance as one of 25. It is not at all necessary that he should have, for by the time a man has reached 70, he ought to have something a great deal more valuable than physical strength.

"The records of the employment department show that the work that calls for endurance is best served as a rule by men who are 40 and over. Younger men seem to tire of jobs of this kind rather quickly and want to be transferred to lighter work.

"Having lived a number of years is a great advantage to anyone if those years have brought a background of experience. It is usual to associate age with years only because so many men and women somewhere along in what is called middle age stop trying. They let themselves be old."

NOTES *from an old* LYRE.

BY

FREDERIC COLBURN CLARKE

CROCODILE TEARS

Did you notice the new cigarette holder Brother Les Rowley has been showing with pride lately, a gift from a certain leading lady on the Paramount lot? It is a shame to undeceive him, as he thinks it was a reward of merit, but said leading lady was enacting a particularly emotional scene, calling for much drama and copious tears. The director, not satisfied, had rehearsed this particular bit of business many times, forgetful of the lunch hour, and Brother Les surreptitiously sent out for a couple of sandwiches, one of which he was eating as the director, satisfied at last, called for a still—also "lunch" in the same breath.

Everybody disappeared except Brother Les and the leading lady. After several films had been exposed, the latter, passing Brother Les, exclaimed:

"Why, you're crying!"

Brother Les indignantly denied it, though tears were rolling down his weather-beaten cheeks.

"You are, too. Oh, I must have been good if you were moved to tears!"

Brother Les tried to say something, but could not formulate any reply adequate to the occasion and totally forgot the ultimate result of eating a raw onion sandwich.

✣ ✣ ✣

MAX FACTOR PLEASE NOTE

Brother Jackson J. Rose has an inventive turn of mind, and has introduced many practical aids to the cinematographic craft, though he sometimes branches out in other fields.

Lately he has not been sleeping well owing to a little circumstance that involved the leading lady of a company on location. She unfortunately forgot her make-up box and, when Brother Rose suggested that her lips were too pale, for lack of the missing accessories, threatened to hold up production several hours, as it was a five mile jaunt back to headquarters. While the director was politely (?) expressing his opinion of actors in general—and his tearful leading lady in particular, a wandering grasshopper lit on Brother Rose's hand, and he brushed it off impatiently. A moment later he glanced down and discovered a yellow stain where it had rested. The old reliable filter informed him that it would photograph quite dark, as it contained a good deal of red, so for the next half hour a wildly gesticulating company chased over an acre or two of ground seeking the elusive insects.

The plan proved a great success, but Brother Rose does not sleep well since he has found he cannot patent the idea—and think how many mililons of grasshoppers are now going to waste!

A FAN-CY TALE

Brother Joe Walker journeyed to one of the small towns in the purlieus of Los Los Angeles to see the the preview of a picture he had photographed and on the way purchased a large bouquet of roses—intending it for the manager of the theatre. (You know, one of those little courtesies theatre managers appreciate so much and seldom get.)

Brother Joe arrived early and settled comfortably in his seat, still holding his flowers, as the manager had not yet put in an appearance.

After reading the advertisements on the edge of the curtain, twenty-seven times and trying to seem unconscious of the amused glances and stares the natives bestowed on his Hollywood clothes and his roses the auditorium was darkened, and the show began. But what was this? Instead of the title and credit line for Brother Joe, a conglomeration of flickers and unmeaning flashes rushed across the screen for a moment—then darkness. The audience tittered.

"One moment, please," was flashed on the screen.

Then the mystery repeated. So did the request sign. Brother Joe gasped. Where was his beloved picture. Slipping out of his seat, he found the manager in the doorway swearing audibly. This was no auspicious moment for presenting a bouquet.

"What's the trouble," whispered Brother Joe, carefully holding his roses behind him.

"How the hell do I know," snapped the frantic manager. "My regular operator is sick—got a new man on tonight."

"Maybe I can help—I'm a cameraman."

"Gosh—get right up that ladder," and Brother Joe was energetically assisted on his way.

In the operator's booth he found a grimy young man sweating over a rewinder, film all over the place.

"What's the trouble," asked Brother Joe.

"How the hell do I know," was the surly answer.

Brother Joe looked over the machine as the youth re-threaded the film, and prepared for another start. "Just a minute," exclaimed Joe; "where's your shutter?"

"Huh? Ye mean that there fan," pointing to the shutter on a nearby shelf; "I took th' dam thing off—don't need no fan on these here now—snow pichers."

Brother Joe gasped.

"Have you a card," he inquired.

"From the heterogeneous contents of his pocket the youth extended a grimy pasteboard.

Sure he had a card—Plumbers' Union No. 033.

Brother Joe silently adjusted the shutter and started the machine. On came the title—the credit line for Brother Joe.

He turned and presented the astonished youth with the roses.

"You deserve these more than the manager does," he said, and went back to his seat to enjoy the frigid winter scenes.

✣ ✣ ✣

BINDING AND LEGAL

Brother Howard Hurd seems to have discovered the Fountain of Youth, as regards appearance, but he looked much younger when connected with the Metro-Goldwyn-Mayer studio and, in a pair of golf trousers—well—this is what they got him into!

Brother Hurd went out to lunch one day and sat across the table from an old white-haired prospector from Arizona who was suffering from ill health, seeking gold in the "movies" instead of in "them thar hills." (No, he wasn't working.)

Brother Hurd took the old man into the studio and persuaded a director who was putting on a western picture to add his protege to the cast. A couple of hours later Brother Hurd came out of a conference and strolled around to see how the old man was getting along. As he came in sight of the set, the prospector—who resembled the prophet Elijah—in a hastily improvised cassock and stole and with a copy of "Peck's Bad Boy," in lieu of a bible, was about to intone the marriage service over the two leading players as the cameras began to grind. Suddenly wild shouts interrupted the solemnity and Brother Hurd rushed in with arms upraised, shouting "Stop! Stop!"

"What's the matter now?" growled the director. Brother Hurd shook an accusing finger in the psuedo-parson's face, who dodged, expecting a fist.

"That man is a regularly ordained minister of the church of England," declared Brother Hurd, "and as is—this ceremony would be perfectly binding and legal—he told me so himself this morning! Didn't you," he demanded, turning to the near actor who was eyeing him complacently.

"Wall," he replied, looking down at Brother Hurd's short pants and golf stockings, "ye wuz tellin' me ye wanted realism in yer picher, an' I 'lowed from yer short pants ye wa'nt old enough ter be a liar!"

✣ ✣ ✣

HYMENEAL

Brother Paul Hill has taken unto himself a wife. He was married on August 18 to Miss Ruth Lee at the Little Church of the Flowers. Every member of Local 659 heartily wishes this fine young couple a long and happy life.

* *

As **The International Photographer** goes to press the editor is informed that Brother William Foxhall, assistant, has become a Benedick, but no details are available. Don't be so bashful, Bill. We're all for you. Congratulations.



It is with something more than mere homage that we, with the rest of the world, render tribute to Thomas A. Edison, the grand old wizard of light, at the fiftieth anniversary of the invention of the first practical incandescent lamp . . . . for Thomas A. Edison has not only paved the way for "Inkies" but has also given us a heritage of tireless study and exhaustive research which has contributed much to our success in revolutionizing the lighting of sets for the motion picture industry. One of the latest achievements of "Inkies" was the lighting of R. K. O's great color-sound-talking picture, "Rio Rita" with Robert Kurrle at the camera and William Johnson, chief electrician. . . . . .

INKIES

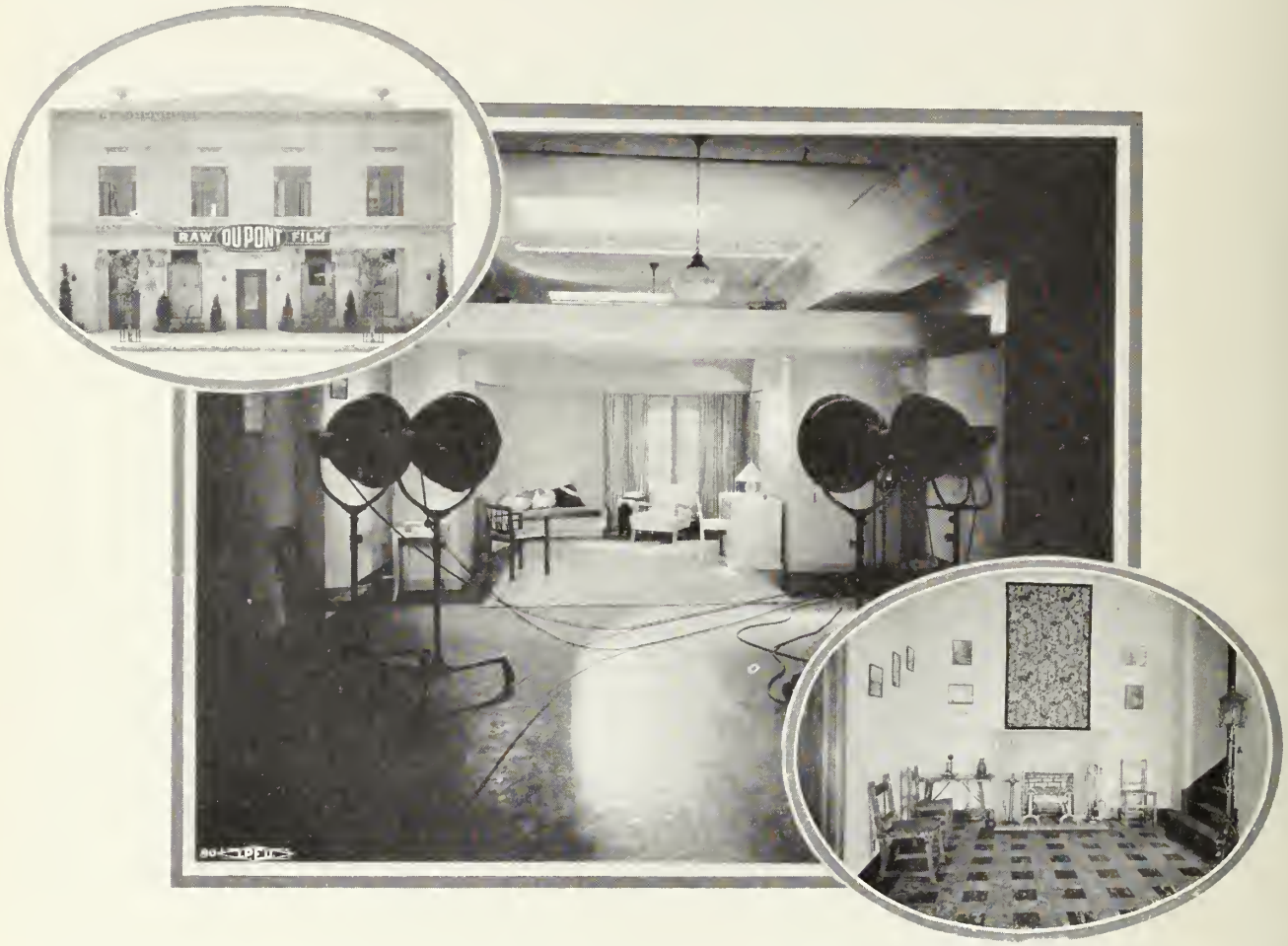
IF IT ISN'T AN IT ISN'T AN INKIE

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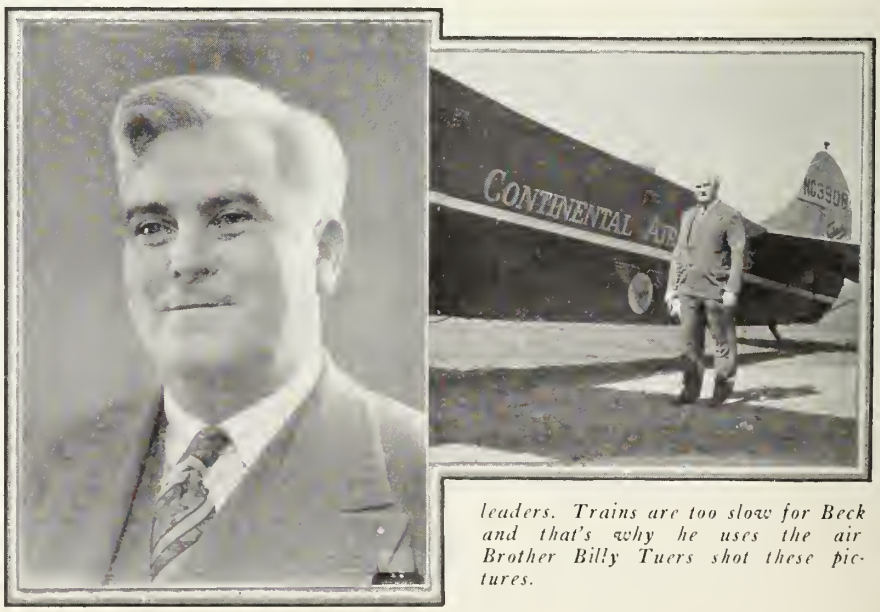
The Dupont Baby Set



Upper left, the home of Dupont Raw Stock in Tek-Nik Towne, office of Smith & Aller, 6656 Santa Monica Boulevard; lower right, the homey lobby of the Dupont Building; center, the Dupont Baby Set, occupying the left lower half of the building fitted with every possible accessory for making motion picture tests; beautifully dressed, Inkie and Carbon light equipment, and all done for the exclusive use of cameramen desiring to make tests. Say Smith & Aller, "Here it is boys. It's yours. Use it."

MEET BROTHER BECK

The handsome and good natured face which here greets the reader is no less a personage than our Big Brother Cleve Beck, fourth vice-president of the I. A. T. S. E. and M. P. M. O., in charge of the Pacific Coast jurisdiction of this great organization. Brother Beck's headquarters are in Oakland, and he is one of the busiest men in the country as well as one of the most popular and efficient labor



leaders. Trains are too slow for Beck and that's why he uses the air Brother Billy Tuers shot these pictures.

Pictures Problems

BY

LEWIS W. PHYSIOC, *Technical Editor, International Photographer*



LEWIS W. PHYSIOC

There is evidence of a very earnest desire, on the part of all concerned in the making of pictures, for a general survey of the current problems contingent upon the new developments in the talking picture field. This desire has been particularly voiced by The Academy of Arts and Sciences, and is to be commended.

Let us not overlook the basic fact that, at the outset, each picture represents a combination of problems, as is the case in any form of art. This is a principle deduced from a consideration of the distinction between all forms of art and the purely scientific and mechanical endeavors. Now, peculiarly enough, the making of talking pictures is a rare combination of art, science and mechanics and each of these departments must be first considered individually and then the combination as a whole. We can illustrate this by some interesting analogies. We are accustomed to look upon music and painting as very high forms of art, but we find a distinction in these from talking pictures. Music and painting also combine a knowledge of science and mechanics but these elements are invested in a single individual. Painting involves the natural temperament of conceiving or selecting a subject and employing the painters' technique, i. e., the mechanical use of brush work and the placing of pigments, which is an exacting form of mechanics and displays a chemical knowledge of colors which is necessary to make permanent the record of the artist's talent. Music represents the more rare and abstract conception—the invention of a melody, together with a mastery of that beautiful system of mathematics which enables the composer to record his ideas for the benefit of others. In each case, the merit of the work redounds to a single individual. In the making of motion pictures, the difficulties arise from the magnitude of production. It is the result of the organization of varying representatives of the many departments of the arts.

To conceive an idea of a talking picture that measures up to the demands of the truly artistic, we think of the production being vested in a mind that is capable of organizing these elements of picture making, from the selection of the story to the technical mounting of the whole. A survey of the truly great pictures (with a few exceptions) seems to point to the fact that they were the well organized efforts of a single mind. This seems to suggest that the great failing in extensive production is departmental stringencies that tend to embarrass rather than support such talent. Therefore, any effort towards the solution of the various problems must be addressed to a simplified administration organization and capable departmental heads.

After all, we are still making motion pictures and any radical departure in the picture technique must be considered due to the addition of the sound accompaniment and we may best study the subject in the order in which the technique is affected by this new element of the art.

Story

The question arises as to whether we shall adhere to the unique charm of picture story construction, enhanced by the sound supplement, judicially employed, or whether we shall revert to the purely stage practices. We observe this last suggestion in many recent talking films, in which the story is presented through extensive dialogue rather than by the former picture methods and at great sacrifice of pictorial variety. It suggests a desire to curtail production display and often savors of the old stage custom of trying to arouse the imaginaiton to a sense of realism by a dialogue description of an elaborate scene off stage in the wings. A courtroom where the witnesses tell the story—a theatre set where a young girl rises to fame through a few back stage shots, to her final appearance in the long shot before her great audience, are among the popular examples of this type of production.

It is to be conceded that it is an unhappy thing to try to block the opportunities of clever dialogue writers; they must be allowed their place in the sun as were the title writers of the past.

Let us first determine whether we shall make talking motion pictures or merely photograph the stage, thereby robbing both of their peculiar value.

The Theme Song

The song is effective when there is a good reason for it, but we fear a monotony of common-place tunes. A beautiful melody is one of the most appealing productions of art, but is the result of inspiration and we hate to think of them being composed promiscuously and to order.

Recording

It is a matter of universal comment that the recording apparatus catches, very easily, all other sound except that which is most desired. Many questions are continually being asked by those who are unfamiliar with the sensitiveness of the instrument. They wonder why,—when on location,—the noise of a powerful generator, a short distance away, has no bad effect, while an aeroplane, two thousand feet in the air, stops the whole procedure. This suggests a suspicion that the sound experts may be a little over zealous in their efforts to secure a record free from extraneous noises. We can hardly quarrel with them for this, but we do feel that experience will eventually show how far we may ignore some of the things that now frighten us to such an extent. However a very important fact is demonstrated by the sound man's ability to catch all of these noises. It seems that, where difficulties arise in voice recording, that the instrument is less at fault than the voice. The problem of satisfactory recording of the voice is due to the fact that the ear is so experienced and critical of the sound of the human voice, it being so intimately identified with our existence, from the very hour of birth.

Therefore, let us not take too lightly this matter of recording, and its influence on our art.

A few years ago, it might have been considered an exaggeration to have suggested that the science of recording could have any influence on the drama. However, it may be worth-while to recount some interesting experiences, which may illustrate the possibility that the recording department may have considerable influence on dramatic art, especially the study of reading of lines.

We must not overlook the fact that the reading of lines, elocution, declamation (or what you wish to call it) is a very beautiful, subtle art. This fact is readily observed, when present among a group of the laity, any effort is made to read or declaim in dramatic character. It is very rarely that we find anyone who can read the simplest subject with any show of the knowledge of that interesting combination, articulation, pronounciation, inflection, emphasis, modulation, pitch, etc. Indeed, it is not only among the laity that we find this lack of ability. We may frequently attend the theatre, and by a critical analysis of the declamation, we may observe that a great percentage of the lines are lost to the audience. This is due to several reasons: chief among which is the very modern technique of the stage which has adopted an ultra realistic mode of reading lines, compared to the grandiloquent elocution of the early drama, when the lines were delivered with the idea of presenting the literary beauty as well as the dramatic force of the play.

The modern play lays little claim to literary flourishes and the lines are modeled after current forms of speech and colloquial expressions, and does not demand a study of the ancient delivery.

We find, in this modern technqiue, the very reason for poor audibility. Modern speech furnishes very little as to elegance of expression. We find in it more to be deplored than worthy of imitation on the stage. But the stage is supposed

to be the mirror of life, so, we accept its faithful reflection.

When we consider all this in connection with recording, we find that the chief difficulty lies in the habits of ordinary, every-day speech. We find that, in current conversation, understanding is conveyed more through the process of reasoning by context than by actual audibility. Many people mumble their words through half open lips, rapidly slurring some phrases and polly-syllabled words, sloughing off the final consonants and poorly attacking the beginnings of some words that are readily misunderstood. When we add, to these elements, a poor timbre of voice and untrained diaphragm control, we enter upon some of the difficulties of recording.

Now it was observed, years ago, by trained actors who were called upon to record, that there was a vast difference between speaking for the stage and "talking to the wax." There is an interesting incident of a stage celebrity who experienced this fact. He became considerably upset over the difficulty in recording that voice and diction which had gained him fame. But he afterwards admitted that, through that exacting auditor—the recording machine—he learned more about reading than during years of stage training. We may also recite the experience of a celebrated cellist who, when first invited to record, was so dissatisfied with his work that he acquired a recording outfit and improved his work considerably by making numerous records, critically studying the more musical elements of his technique, phrasing, bowing, attack, etc., and eventually made some beautiful records. Indeed, he even made the statement that this practice before the recorder, and being able to hear himself as others heard him, led him to adopt some radical ideas as to the study of his instrument.

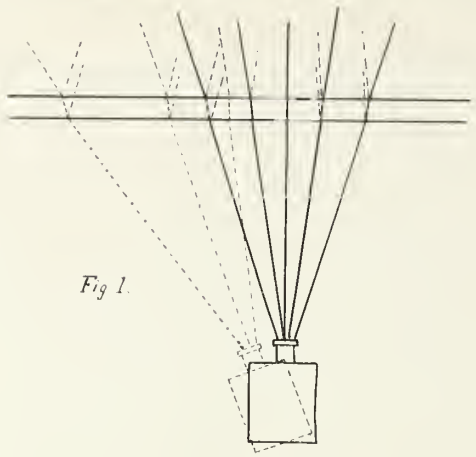


Fig 1.

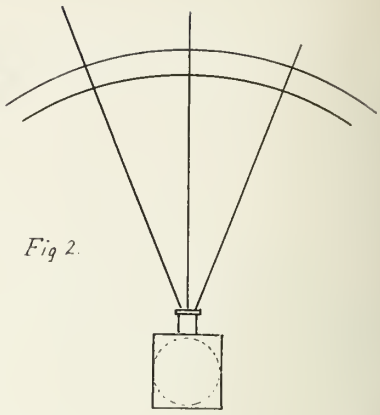


Fig 2.

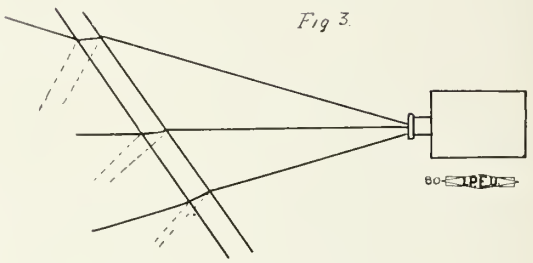


Fig 3.

These incidents would tend towards the belief that the science of recording may, ultimately, have a very salutary influence on the drama, especially if we will accept the instrument as a teacher as well as the production factor in the new art.

We often hear of people having fine recording voices. This is true, but it does

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(Continued from Page 8)

not mean that recording is a simple matter; it merely means that they have been endowed, by nature, with voices of the satisfactory quality, their diaphragmatic control is naturally developed and speech has been habituated to correct spacing and articulation. The hopeful point, however, is the fact that what one may have naturally, others may acquire by training.

It has been claimed that the photographic system requires less training than the wax method. At present this is hard to prove, for we hear good and bad from both systems; and usually, those who record well on one system are equally good on the other. And further, if we study the matter closely, we may find that those who record poorly are usually at fault on the stage.

Let us not delude ourselves into the belief that in recruiting our talkie talent from the stage all will be perfect material. Great ability is rare—it is this fact that accounts for our celebrities, and they are few compared to the number engaged in the profession. We accept the fact that the elocutionary training of the stage is a great asset but it must submit to the tricks in the art of recording, and that a mastery of these tricks will also improve the mother art of stage reading.

Let us urge those who are ambitious in the new field of talking pictures, not to take too lightly the matter of recording, but to make a serious study of it. Let them take well to heart Hamlet's famous instructions to the players; then may we hope to maintain all of the modern realisms and have clear, distinct and audible records.

Photography

The sound-proof booth (the dog house) has placed a restraint upon the cameramen that we cannot minimize. His difficulties and discomforts are so increased, that we notice, with apprehension, an attitude of indifference to the higher flights of his art. When he emerges, exhausted and perspiring, from his hot box, he seems satisfied with the mere idea of having gotten the scene "in the box." We feel that with the continued use of "the dog house," that there will be a radical change in organization of the camera force. The man in the booth has so many things to worry about that it is almost impossible to correctly direct the lighting, and the lighting is the foundation of good photography. This difficulty is also aggravated by the necessity of having numerous cameras on the set, in which case it requires a very skillful artist to arrange the lights equally well for all cameras.

Shooting through the plate glass is another source of trouble. It is impossible to get a perfect focus over the entire picture. Only that portion is sharp where the rays of light enter the lens at right angles to the surface of the glass. Here we have a complication of the laws of refraction and reflection. The accompanying diagram (Fig. 1), shows how this occurs. We may readily see that the error is greatly increased on pan shots.

This trouble might be corrected, to some extent, by adopting a spherical glass, as in Fig. 2, formed on a radius equal to the distance from the glass to the center of the panoramic base. The so-called "Blimp" (the portable soundproof covering) does not offer much relief to the cameraman, nor any correction to the matter of refraction, especially those designed with the glass on an angle, as in Fig. 3.

Besides the problem of refraction, the brilliance of the picture is impaired by the light being reflected from both surfaces of the glass, which tends to smear the highlights and destroy definition.

Panoramic and derrick shots are very expensive, both as to time in arranging and cost of construction of the apparatus. They also entail additional building of set area. What is more important, we doubt very much whether these moving shots are pleasing to the public. We have seen a few instances where they have been employed effectively, but generally, they are uneasy to view, very disconcerting, and wasteful of footage that might be better employed. We feel that they are a reversion to early practices that were quickly discarded by those of better judgment.

Freak set-ups, also, are not pretty and without value in two dimensional photography, and have the fatiguing effect of shifting the spectators around in unnatural places which they cannot locate geographically.

Standard Dimensions

The sound track has encroached upon the picture area to a very awkward extent. The Movietone frame and the 70

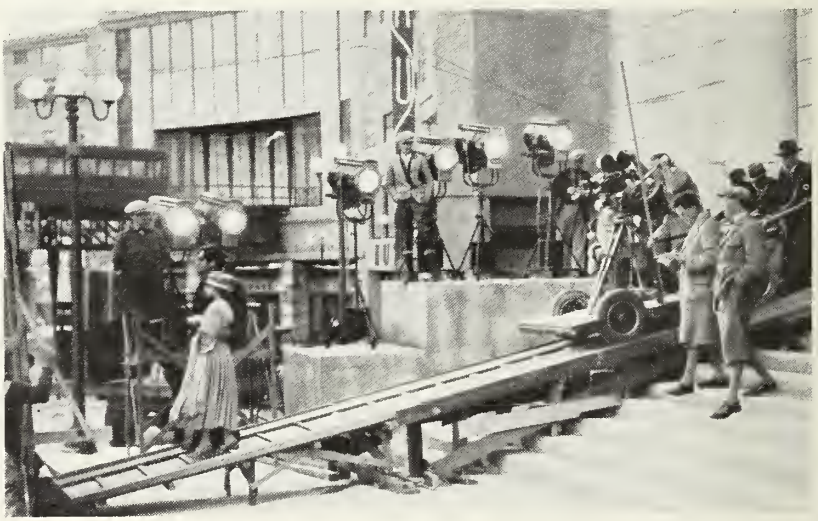
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F. W. Murnau and Karl Struss directing a scene with Janet Gaynor and George O'Brien for "Sunrise," a Wm. Fox production. Brown Ashcraft High Intensity Spotlights boosting daylight

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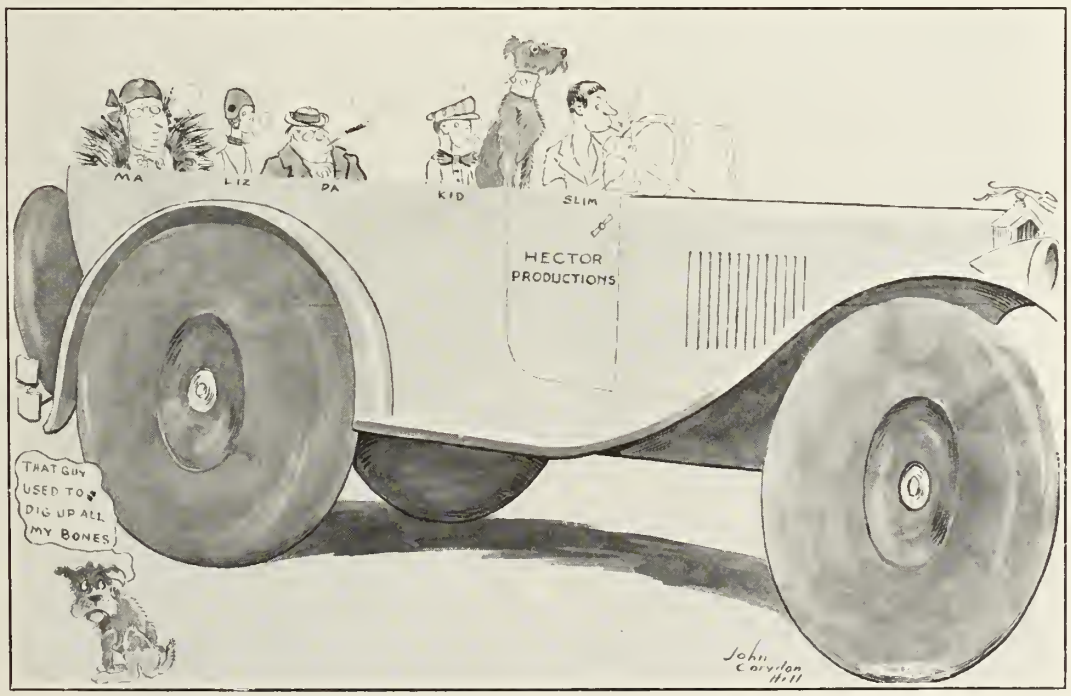
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PICTURES PROBLEMS

(Continued from Page 10)

m.m. Grandeur film are two unhappy extremes. This wide picture seems to claim favor as an approach to the visual range of the eye. We believe this is a mistaken promise. Let us not forget that the great range of the human vision is provided us as a means of protection, but that the choice field of vision is very limited. A simple experiment will demonstrate that when we select a prospect, the area of critical interest is very narrow, and beyond this, is merely a conscious retinal periphery. All forms of pictorial art demand a narrow, but pleasing, projection, and we venture that there is little artistic appeal in an excessively wide film. We should carefully distinguish between a larger picture, in the taking, and a wider screen. A larger initial picture may certainly have many advantages, provided there are no mechanical difficulties in the projection. Its value may be understood by an exaggerated comparison—if we imagine a motion picture, of the dimension of a lantern slide, projected to the size of the standard screen, we would have a picture of incomparable beauty and smoothness of grain, and all other blemishes would be proportionately reduced.

It is logical to assume that the picture must, eventually, be provided with a space for the sound track; this could be done in the positive only without disturbing the standard proportions of the negative. If the industry insists, however, on a change, the ideal dimension appears to be that suggested by Westerberg, 51 m.m. wide, with the picture 36 m.m. x 22½ m.m.

It is terrifying to contemplate scrapping the present standard equipment, but anything so revolutionary as the "talkies" demands equally radical changes in the machinery to produce them artistically.



LIGHTING "RIO RITA"

Imagine some 19,500,000 lighted candles spaced one foot apart!

In a straight line, they would reach from Los Angeles to New York and double back to Chicago.

Reduced to a common denominator, that is the electrical energy used in making the Technicolor sequences of Radio Pictures all-talking, all-musical extravaganza, "Rio Rita."

To William Johnson, chief of the electrical department of RKO studios, the lighting of the elaborate Technicolor sequences of "Rio Rita" meant just so many incandescent bulbs drawing so much wattage.

To Robert Kurrle, chief cameraman for the "Rio Rita" production, it meant the proper placing of a battery of Mole-Richardson Inkies to give the best color values to the brilliant barge night club setting with its hundreds of players.

To the host of actors and actresses working eight days on these sequences, the lights meant Mr. Webster's definition of incandescents ("Glowing due to heat") because there were many cooler places than the "Rio Rita" set during the filming of the color scenes.

Photographing in Technicolor demands just double the light necessary for making scenes in black and white. This is because the color screens used in front of the lenses have the same effect as putting dark glasses on the eyes.

On small sets doubling the amount of light does not mean so much, but since "Rio Rita" was made on a gigantic scale, the sets were spacious and to achieve the finest effects lights were used with a prodigality that made the sun envious.

Three hundred and twenty-six incandescent bulbs were employed by Johnson and Kurrle in lighting the "Rio Rita" barge, alone.

The smallest of these consumed 1,000 watts, the largest 10,000 watts. With their mirror reflectors their brilliance was multiplied many times.

Getting down to basic figures, here is the list of incandescent bulbs used, the size and aggregate wattage:

Number	Wattage	Total
97	1,000	97,000
192	2,000	384,000
95	5,000	475,000
2	10,000	20,000
386	18,000	976,000

Multiplying this total wattage by eight, the number of days the company worked on the color sequences, brings the aggregate wattage to 7,808,000. Electrical engineers declare a 40-watt bulb gives approximately 100 candlepower, or 2½ candlepower per watt. Thus, 7,808,000 watts means 19,520,000 candlepower.

Getting back to the candle simile used at the beginning of this story: Spacing 19,520,000 lighted candles one foot apart in a straight line would cover a distance of about 3,700 miles!

Anyway one measures this staggering volume of light it fairly shouts for attention. It is a barometer of the magnitude on which "Rio Rita," with Bebe Daniels and John Boles featured, has been transferred via Photophone to the screen by Radio Pictures.

Ziegfeld's famous stage success becomes doubly eye and ear appealing through the treatment given by Luther Reed, the director. RKO executives are confident this musical extravaganza will write a new and hard-to-equal page in the annals of the sound screen.



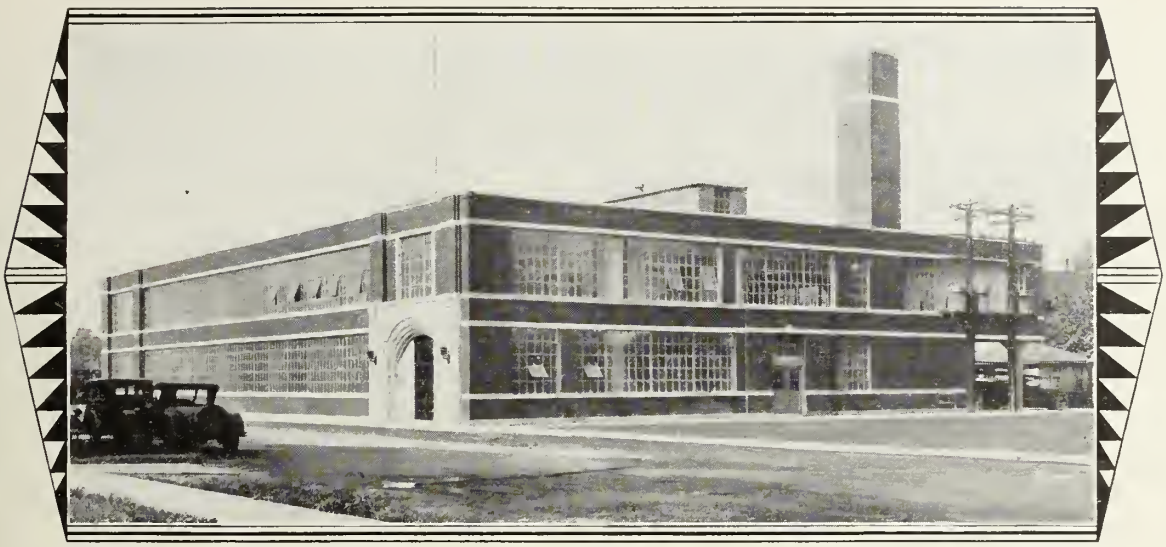
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THE UNION LABEL

(Continued from Page 2)

existence, but we want to make it possible that men and women shall enjoy life and develop the best that is within them. That can be done only when the hours of labor are reasonable. We want to make conditions tolerable and humane. We want to make it possible for men and women to work under humane conditions. These are the objectives of our labor movement.

"Our great labor movement is a part of our national life. The men and women who make it up are citziens of these United States and are interested in our government. No group of people realize the value of the principle enunciated in the Declaration of Independence more than the working men and women of America. It is because we realize what they mean that we are so devoted to our great institutions and our American form of government."



The new B.ll & Howell Engineering Development Building, Belle Plaine and Rockwell Streets, Chicago

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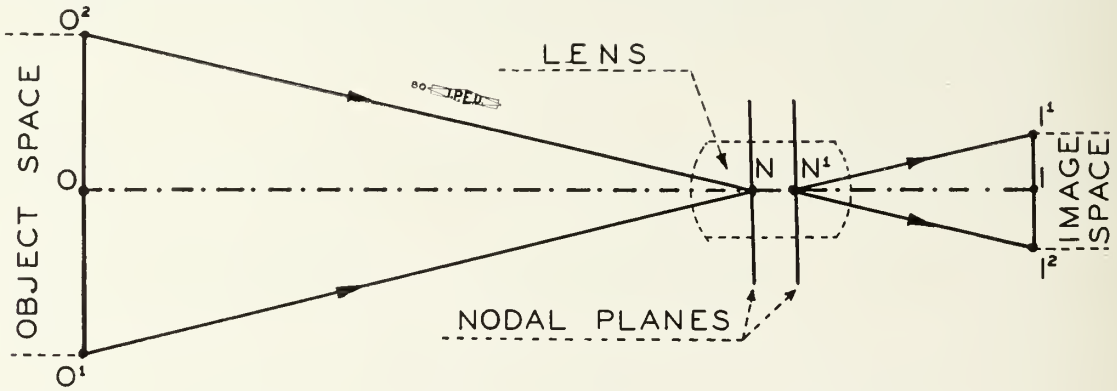
Angles of View

BY

JOSEPH DUBRAY, *Manager of Special Service Department, Bell & Howell Camera Co.*

Sound pictures have brought about the necessity of making a simultaneous use of lenses of varied focal length, and it is, therefore, quite essential for the cinematographer to be able to rapidly determine with a fair degree of accuracy the angle of view covered by any lens that he may be called to use.

A very simple formula will permit to rapidly determine the space-width covered by lenses of any focal length and at any distance from the camera.



Two main cases present themselves for our consideration. First, the case in which the standard full size camera aperture is used, and, second, the case in which the smaller sound aperture is required.

In the first case the formula may be expressed as follows:

$$W = \frac{24\ D}{F}$$

in which:

W represents the width of the object space.

24 is the width of the photographic image in millimeters.

D represents the distance of the object plane from the lens.

F represents the focal length of the lens in millimeters.

For example: Suppose the camera is set facing a wall 23 feet away from it. The lens used is of a focal length of 50 millimeters. The equation becomes

$$W = \frac{24 \times 23}{50} = 11 \text{ feet}$$

In the case in which the reduced sound aperture is to be considered, the equation becomes

$$W = \frac{20\ D}{F}$$

where again:

W represents the width of the object space.

20 is the width of the photographic image in millimeters.

D represents the distance of the object plane from the lens.

F represents the focal length of the lens in millimeters.

For example: Suppose that the camera is set, as above, facing a wall and 23 feet away from it and that the lens used has a focal length of 50 millimeters, we will have

$$W = \frac{20 \times 23}{50} = 9.2 \text{ feet}$$

It may be noted here that the true width of the sound image is, as per the recently proposed Standards, of 20.955 m.m. or very nearly 21 m.m. We suggest, however, the 20 m.m. constant because it affords a much easier mental calculation and the results obtained are sufficiently accurate in actual studio practice, especially when rapidity is more essential than absolute precision.*

It is quite evident that whenever two factors of the equation are known, besides the constant width of the camera aperture, the unknown factor can easily be determined.

If the width of the image space and the focal length of the lens are known, the distance at which the camera is to be set will be found by:

$$D = \frac{W\ F}{24}$$

for the full standard aperture

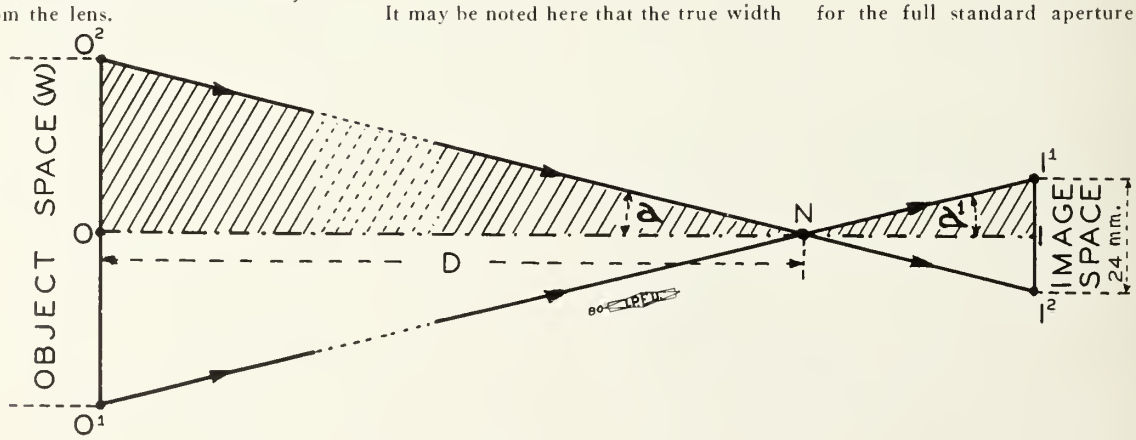
$$D = \frac{W\ F}{20}$$

for the sound aperture.

For example: Suppose that the width of the object space to be covered is 63 feet, a lens of 40 m.m. focal length will demand that the camera be set at:

$$D = \frac{63 \times 40}{24} = 105 \text{ feet}$$

for the full standard aperture



$$D = \frac{63 \times 40}{20} = 126 \text{ feet}$$

for the sound aperture.

On the other hand, if the width of the object space and the distance of the camera from the subject are known, the focal length of the lens to be used is easily determined by:

$$F = \frac{24\ D}{W}$$

for the full standard aperture

$$F = \frac{20\ D}{W}$$

for the sound aperture.

For example: A width of 32 feet is to be covered and the maximum distance available is 56 feet. The focal length of the lens to be used will be found thus:

$$F = \frac{24 \times 56}{32} = 42 \text{ m.m.}$$

for the full standard aperture

$$F = \frac{20 \times 56}{32} = 35 \text{ m.m.}$$

for the sound aperture.

A 40 millimeters will be sufficiently near the focal length required for the full standard size aperture while a 35 millimeters will respond to the requirements of the sound aperture.

To explain how the above equations may be arrived at, we shall reason as follows:

A composite objective may be considered as a single lens of a certain thickness. In order to geometrically trace the path of the light rays which pass through it and concur to form an image of an object, it is only necessary to know the position of the two Gaussian points within the lens, which are known as the Nodal point of entrance and the Nodal point of emergence.

The focal length of a lens is measured from the Nodal point of emergence N^1 to the point where the axis of the lens crosses the image plane I which is to be found where an object at an infinite distance from the lens forms a perfectly sharp image.

In motion picture photography the angle $I^1\ N^1\ I^2$ is determined by the focal length of the lens and the width of the camera aperture (24 m.m. for the full standard aperture and 20 m.m. for the sound aperture).

The angle in the object space $O^2\ N\ O^1$ is equal to the angle $I^1\ N^1\ I^2$ in the image space because, according to the Gaussian law, any ray emanated from an object and entering a lens in a direction O N, emerges from it as if proceeding from the Nodal point of emergence N^1 and in a direction parallel to the incident ray.

The geometrical tracing of the path of the extreme rays concurring to form an image in a motion picture camera may be simplified by disregarding the internodal distance, as shown in the figure.

Since the two angles encompassing the image and the object space are equal it is evident that the two angles shown by the shaded portion of the figure, and which for brevity we shall call **a** and $\mathbf{a}^1$, are also equal.

It is a truth that the angles **a** and $\mathbf{a}^1$ being equal, the ratio between the length of a perpendicular traced from any point of O N and the distance from this point to N is equal to the ratio between the length of a perpendicular from any point of N I and the distance from this point to N.

In trigonometrical terms these ratios are called the tangents of the angles **a** and $\mathbf{a}^1$ respectively.

Since the perpendicular $I\ I^1$ is constant (12 m.m. when the standard full camera aperture is considered) and N I represents the focal length of the lens, we have

$$\tan \mathbf{a}^1 = \frac{12}{\text{focal length of the lens}}, \text{ and}$$

supposing the focal length of the lens to be 50 m.m., we have

$$\tan \mathbf{a}^1 = \frac{12}{50}$$

Now since the two angles $\mathbf{a}^1$ and **a** are equal, their tangents are also equal and, therefore, if we call X the length of a perpendicular $O\ O^2$ and we arbitrarily fix the distance N O at 32 feet, we will have

$$\frac{12}{50} = \frac{X}{32}$$

and, therefore, $X = 7.68$ feet.

This represents evidently half the total width of the object plane $O^1\ O^2$ and, consequently, according to the data given above a 50 m.m. lens facing, say, a wall 32 feet from it, will cover a width of the wall equal to twice 7.68 feet or 15.36 feet, roughly 15 ft. 4 in.

If we represent this width by the symbol W we may, from the above, write the equation

$$W = \frac{12 \times 32}{50} = 2$$

For convenience, since the factors 12 and 2 are constant we may simplify the equation to the form

$$W = \frac{24 \times 32}{50}$$

or more generically if we represent the distance of the lens from the object by the symbol D, and the focal length of the lens by the symbol F

$$W = \frac{24\ D}{F}$$

which is the equation given at the beginning of this article.

In the case of the sound aperture, and following the same reasonings the factor 24 becomes 20 and, therefore,

$$W = \frac{20\ D}{F}$$

It is to be clearly understood that the results thus obtained are only approximate, since they are based upon the assumption that the lens is focused *at infinity* irrespective of the distance of the object from it.

It is well known that to focus an object at *a finite* distance from a lens the latter has to be racked forward and, therefore, the distance N I becomes greater than the focal length of the lens.

This racking forward of the lens is, however, very slight, especially for lenses used in motion picture work, and since the distance from object to camera is usually relatively great, the difference involved by the racking forward of the lens and the resultant errors may be disregarded in consideration of the convenience and rapidity with which the camera angle can be determined with sufficiently close approximation.

* Since the projecting machine aperture has a width of 23.01 millimeters, according to the standards adopted by the Society of Motion Picture Engineers, the constant 24 m.m. for full aperture dimensions may be changed to 23 and the equation could therefore read

$$W = \frac{23\ D}{F}$$

THE DARK ANGEL

The wing of the Dark Angel once again touched Local 659, when Abbie L. Hoke, beloved mother of Brother Ira Hoke, went to her long home after a severe illness during which she was almost constantly attended by her devoted son.

Abby Furbush, a gentlewoman born, first saw the light April 29, 1860, at Clam Falls, Wisconsin, a town founded by her grandfather, native New Yorker, who came "west" to engage in the lumber business and whose holdings covered a large section of the Badger state.

Abby Furbush sprang from real old pioneer stock, people prominent in early Colonial times, veterans of the French and Indian wars and also of the Revolution, one of her forbears being a member of George Washington's staff. After finishing school at Cordova, Ill., where her parents moved when she was a girl, Miss Furbush went to Minneapolis, Minn., where she became so intrigued with the printing trade that she learned it and became a member of the Minneapolis Local of the International Typographical Union. Later, feeling the lure of the west she transferred her affiliations to Local No. 95, I. T. U., Helena, Mont.

Later, as Mrs. Hoke, the subject of our sketch returned to Cordova which was her home until 1910 when she came to Hollywood, where she lived until her passing with her only child, our Brother Ira Hoke.

Mrs. Hoke maintained her interest in Union affairs until the end and was greatly interested in the welfare and growth of Local 659 and its magazine.

To Brother Ira goes the heartfelt sympathy of every member—a noble son and his mother's greatest comfort.

OUR FRONT COVER

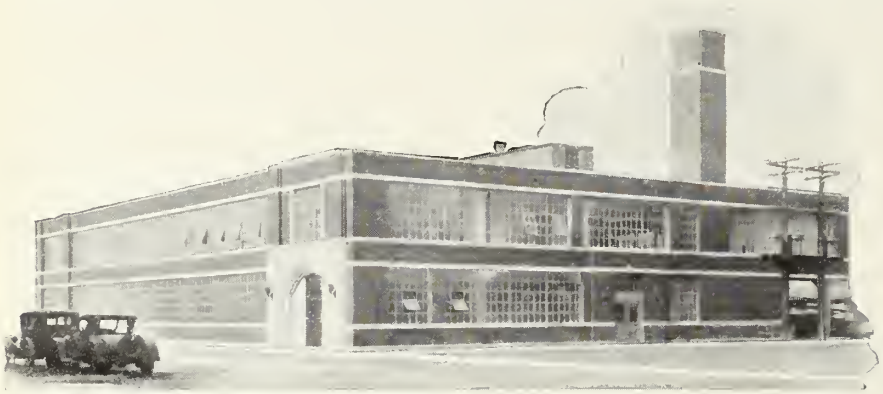
You can't read it, but the name of the artist who shot our front cover for September is none other than Brother Frederic Colburn Clarke, photographer, poet, writer, painter, etc. Now turn back to the front cover and see if that desert shot could possibly be improved.

A SUGGESTION

A suggestion that may relieve a lot of unnecessary keen competition and heartbreaking disappointment: When a first cameraman gets a job or is after one, and a second cameraman calls him about a job as his second, let the first man tell him frankly if he prefers some one else (whether he himself has the job or not). If they have worked together before and the first does not like the second personally or otherwise he should tell him what his faults are and give him a chance to improve rather than stall him off with a fake excuse, thus keeping him in suspense. Being very sensitive myself I was more heart broken about the attitude than about the loss of the job. I thank you.

A Brother Member.

Bell & Howell Expand



Announcement comes to us from J. H. McNabb, president of Bell & Howell Co., Chicago, that the new $500,000.00 Bell & Howell Engineering Laboratory is now completed. Nearly 400 engineers and technicians, as well as machinery of the the highest standard, will occupy the 35,000 square feet of floor space in the new building. This imposing personnel will be under the direction of Mr. A. S. Howell, chief engineer of the Bell & Howell Company, and will devote its time and energy to new developments in the mechanics of the motion picture industry, whether originated within the Bell & Howell organization, or submitted to it by the industry as a whole or by individuals.

Perhaps no other industry in the world requires more co-operation between the manufacturer and the user of equipment than does the motion picture industry which has in the past, and will in the future, owe most of its forward strides to the developments suggested by those responsible for the finished products—excellent film productions. A thorough interchange of ideas is indispensable to the success of this industry, which, more than any other, involves the application of scientific and technical knowledge.

Realizing the necessity of this co-operation, the Bell & Howell Company has spared no effort to provide it in the most efficient way. This is evidenced by the construction and equipping of the new engineering laboratory, and by the placing of the facilities of this laboratory at the disposal of the industry.

This laboratory will answer a long-felt want which has been more pronounced since the recent advent of talking pictures. This epochal advance has, so to speak, freed the industry from the routine system and brought to its consciousness the necessity of organizing its future developments on a sound scientific and technical basis.

The wisdom of this policy has been recognized by the Bell & Howell Company since its very inception, 22 years ago, and has been proved by the fact that most of the motion picture standards used nowadays throughout the world have emanated from the Bell & Howell Laboratories. Also, the company has always been ready, almost upon demand, to modernize its cameras, printers, perforators, or whatever machinery was demanded by the industry, according to the exigencies brought about by the constant progress in the art.

The new engineering laboratory and the recognized ability of the engineering force will add considerably to the facilities that the Bell & Howell Company will be in a position to offer to the professional motion picture field.

Sound and talking pictures have opened entirely new and unlimited fields for advances in motion picture production. Color photography, wider width of film, and perhaps stereoscopic effects will be the next most striking developments which the industry will witness.

The Bell & Howell Company is ready to cope with the present situation, and is, more than ever, in a position to lead in the mechanical advances which will permit the industry to prosper, expand and fulfill its mission in both the entertainment and educational fields.

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Pals of the Prairie	F. B. O.	Virgil Miller
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The INTERNATIONAL PHOTOGRAPHER

THIS, the eighth issue of **The International Photographer,** finds our magazine going forward by leaps and bounds toward the success that was its goal from the beginning.

Both in America and abroad it is meeting with amazing support among the technical people of the Motion Picture and Allied Industries and, especially, the response from members and Locals of the I. A. T. S. E. and the M. P. M. O. has been both spontaneous and enthusiastic.

Our advertisers are getting results, our readers are pleased and our circulation building rapidly, with a friendly field of 90,000 men to cultivate. And all this has been done within the space of eight months.

The publishers and editors of **The International Photographer** take this method of extending their heartfelt thanks to all who have in any way lent a helping hand toward the success of this enterprise.

Our plans for expansion and improvement are rapidly working toward fruition and, if we may be permitted to drop into the vernacular for a minute, let us modestly add that you "ain't seen nothin' yet."

Address all communications to

THE INTERNATIONAL PHOTOGRAPHER

423 MARKHAM BUILDING

6372 Hollywood Boulevard Hollywood, California

Light's Golden Jubilee

BY

HOYT BOLSTER

On the night of October 21, 1929, the whole world will be tuned in on Dearborn, Michigan, center of Mr. Henry Ford's activities.

It will be the greatest radio hook-up in radio history and the occasion will be "Light's Golden Jubilee," the National Electric Light Association's title for the celebration of the Fiftieth anniversary of the invention of the first practical incandescent light, October 21, 1879, by Thomas Alva Edison.

Why will this great celebration center at Dearborn, Michigan?

Because Henry Ford, the great friend and admirer of this Grand Old Wizard of Light, has not only built and endowed at Dearborn the Edison School of Technology as a practical monument to Edison, but has removed Menlo Park bag and baggage from New Jersey to Dearborn and has there set it up again just as it was in New Jersey—not replicas, not reproductions, but the original Menlo Park buildings and appurtenances, just as they were when Edison and his helpers worked and lived in them fifty years ago.

They are all there — Mrs. Jordan's boarding house, where Edison and his staff lived, the old laboratory, the old lathes, lamps, tools; the old wood burning boiler; everything just as shown in the pictures on pages twenty and twenty-one of this magazine, which pictures were photographed and sent to **The International Photographer** by W. J. Cameron, of the Ford Motor Co., at Dearborn.

From all parts of the country the great Ford organization has brought back every stray part and relic until at this writing the old Menlo Park is complete and the wheels of the old machinery are greased and ready to be set in motion by the touch of Mr. Edison on the night of October 21, 1929.

Not alone will Edison be at the great Jubilee. He will be surrounded by the Edison Pioneers—that unique little group of veterans of the Age of Light—who helped and are still helping to develop this wonderful epoch. Among the members are a Japanese, a colored man, and many of the outstanding figures in industrial America, including Henry Ford. The Edison Pioneers meet once a year on Edison's birthday to honor the "chief." At the annual meeting held February 11, 1929, this "Old Guard" suggested Light's Golden Jubilee to the world at large.

The program for the day will be: first, the dedication of the Edison School of Technology, Mr. Edison, himself, presiding; second, the dinner tendered Edison, his helpers and distinguished citizens of the world.

Then night with the world-wide illumination by incandescent lights — the tribute of the nations to this great, erudite, yet simple and kindly man—world-wide because every great city of America and Europe will participate in the radio hook-up with their brilliant descriptions of the doings on land, sea and in the air.

Up to the time of going to press the Motion Picture Industry, so far as this journal knows, had taken no steps to participate, as a unit, in this great Edison celebration and, therefore, no program, if any, can be given here. The time is short and whatever is to be done should be undertaken at once with enthusiasm and speed for surely no industry in the world is more indebted to the Wizard of Light than the great Motion Picture Industry in general and the cinematographers in particular. Editor's Note.

And what more appropriate way to invite the world to this great event? Wasn't it Edison, who in 1883 discovered and patented an electrical phenomenon known as "Edison's Effect" in connection with his electric lamp, which covers the foundation principle on which every modern radio lamp or tube is based?

And now comes the climax. Here is what might happen as described by Mr. Ford's imaginative counsel of public relations:

Suppose that we turn this article over to Graham McNamee, the famous radio announcer. The orchestra has just finished playing "The Star Spankled Banner." Perhaps Graham will start off like this:

"Ladies and gentlemen! Thomas Edison is now standing up. He is smiling down at his old friend, Henry Ford. Now his hand is on an old-fashioned connection on the table before him. All the modern Mazda lamps have suddenly gone out. We are practically in darkness except for an old-fashioned oil lamp sitting beside the handle which Mr. Edison is grasping.

"Ladies and gentlemen, you could hear a pin drop in this room. Edison is still smiling in the glow of that old oil lamp.

"And now he has made the connection. The old generators are humming! The lights of 1879 are beginning to glow about the room! The Edison Pioneers are on their feet cheering their chief. One. Two. Three!

"Talk about your football cheering, ladies and gentlemen of the radio audience! What team wouldn't want to have this grand old guard behind them? I'll bet everybody in this room under fifty years of age has a lump in his throat as big as an apple . . . I know I have.

"And now, ladies and gentlemen, while this cheering is going on I will turn the microphone over to the announcer who is out on the roof of the old laboratory—who will tell you what is going on outside." The other announcer takes up the thread:

"Good evening, ladies and gentlemen. I have been listening to Graham's description of what has been going on inside. I have a lump in my throat, too, but my eyes are up in the sky. You can't think about lumps and look up here. I've never seen anything like it. I shall try to describe it to you.

"The air is filled with wheeling, flashing paths of light. I can't tell you how many by looking at them. I am told, however, that there are over one hundred planes in the air above me. Giant searchlights are playing on them as they circle about, picking them out like giant droning bats. Hundreds of thousands of people are watching this spectacle, the lights of their parked motor cars giving the area beyond which they are crowding the appearance of a huge pincushion of light.

"But perhaps you would enjoy an airplane view, not only of what is going on here, but what is going on all over the country in the way of lighting festivals to celebrate Light's Golden Jubilee. The next voice you will hear will be that of an announcer flying at an altitude of a thousand feet over Dearborn and Detroit. How does it look up there?"

"Good evening, ladies and gentlemen. I am a thousand feet above Detroit and Dearborn. Fairyland lies below. You may get some idea from your windows on this great light festival all over the country, but you certainly get a de luxe view from up here.

"Detroit looks like a mammoth jewel box. Diamonds, rubies, emeralds! They dot and splash the night in a way that staggers description.

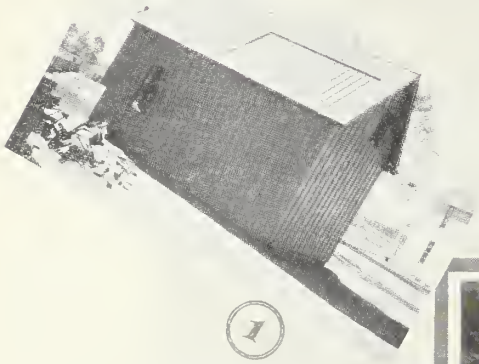
"Beyond, Lake Erie lies purple and placid. From this altitude I can glimpse other spots of festival light. Toledo, I think; Grand Rapids, Ann Arbor. I wonder what New York looks like tonight. Suppose we find out.

"Above New York, ladies and gentlemen of the radio audience. New York is a never-to-be-forgotten sight tonight. I have just listened to the description of Detroit from the air, but you should see this town from above. Not only New York, but Brooklyn and the Bronx, and farther away Newark and Atlantic City and Philadelphia. You can't imagine what it looks like. Searchlights, colored lights. Lights dancing on moving water.

"The East River is filled with long, cigar-shaped objects which stand revealed every now and then as the battleships and cruisers of Uncle Sam's Navy. Their flashlights, too, are probing the night. Their bands are playing. Oh, what a sight! I wonder if Chicago's Michigan avenue can match Broadway tonight? Let's find out.

"Above Chicago, ladies and gentlemen of the radio audience. Chicago certainly is the city of a million jewels tonight. I think every home, building, and factory in Chicago must be joining in this great

THE ORIGINAL BUILDINGS, OF MENLO PARK, NEW JERSEY, BODILY TRANSPORTED TO DEARBORN, MICHI
"LIGHT'S GOLDEN



1



2



6



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12



13

1—Glass House, Menlo Park.

2—Office Building, Menlo Park.

3—Latest photographs of Henry Ford and Thomas Alva Edison.

4—Old School House, Menlo Park.

5—The Carpenter Shop, Menlo Park.

6—Menlo Park Unit as set up at Dearborn. Ford Flying Field runway in foreground.

7—Replica of Independence Hall which will house the Ford Museum, will be completed by October 21, 1929.

8—View of Campus of the Edison School of Technology; Menlo Park Unit at turn of road, upper left near grove. School buildings in center across lagoon. Ford Field upper right. Detroit in distance.

N PROCESS OF BEING SET UP. ALL WILL BE COMPLETED BY THE TIME OF THE GREAT CELEBRATION, CTOBER 21, 1929





4



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8

9—The Jordan Boarding House where Edison and his fellow workers lived at Menlo Park. First house ever lighted by incandescents.

10 and 14—The Old Wizard tracing his signature in cement at the entrance of the Edison School of Technology, Dearborn; the signature.

11—The old inn at Menlo Park in process of setting up at Dearborn.

12—The old Grist Mill.

13—Interior of Menlo Park Laboratory where Edison completed his invention—the first practical incandescent light.

15—The old Smith Creek Station—the station of Menlo Park.

16—Engine Room of old Grist Mill, Menlo Park.

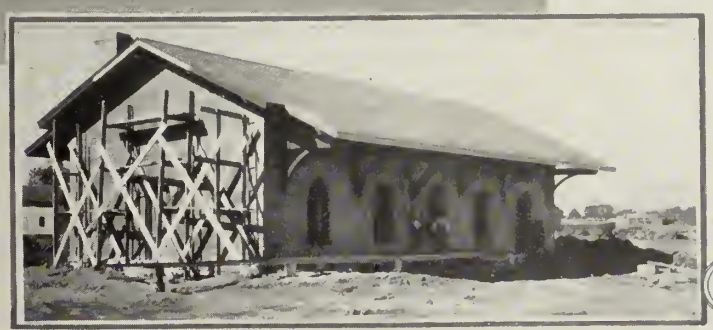




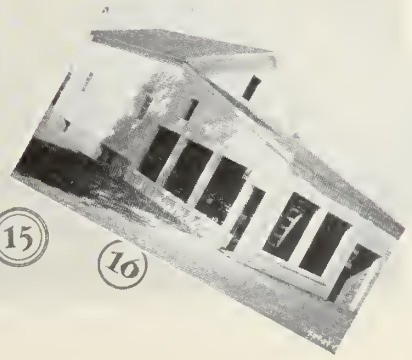
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John Cory Hill





15



16

festival. It's gorgeous. Beyond Michigan avenue thousands of colored lights are multiplied a hundred-fold in the waters of Lake Michigan as Chicago yachtsmen pay their tribute to Thomas Edison. I wonder how it looks out West.

"Above Los Angeles and Hollywood. In all the world no sight like this. The whole country is ablaze from the islands of the Pacific to the Sierra Nevada Mountains and from the Mexican boundary north to Santa Barbara. The battleships in the harbor are playing streamers from their searchlights across the sky, while the upper air is full of planes doing stunts and shooting fireworks. Every oil field is brilliant with innumerable lights. The hundreds of towns and cities have crowded on every watt of electric energy they possess and the great studios of Hollywood, so greatly indebted to Edison, usually dark at night, are burning up with fountains, cascades, streamers and flashes of lights of all colors. The main arteries of Los Angeles and the great thoroughfares leading to the beach cities are rushing rivers of light from hundreds of thousands of automobiles, while the beach fronts for a distance of one-hundred and fifty miles are celebrating with fireworks. There is music everywhere and Hollywood boulevard looks like a thousand animated rainbows. From up here seventy-two cities can be seen, each one a blazing star, the effect being too gorgeous and impressive for words and now, friends of radio land we will send you back to Mr. McNamee.

"This is Graham McNamee again, ladies and gentlemen. I hope you have enjoyed your aerial tour of the United States and have thus been able to get some picture of these great festivals of light which are being held all over the country—and all over the world. And remember that you have seen only a tiny portion of this great event. It seems to me that, with the entire consent of Mr. Volstead, the whole world is lit tonight. Every village and hamlet. Every cross-roads. And the man who made it all possible is chuckling here like a school boy. Some grey-haired youngster down at one of the tables has just yelled, 'Hey, Tom!'

"And now we will hear a few words from several distinguished citizens who will thank Mr. Edison on behalf of the United States for the blessings the Age of Light has bestowed upon this country. After that we will hear, for the first time in the history of the world, the other countries as they pay tribute to this kindly epoch maker.

"We are privileged tonight to be present at history in the making, ladies and gentlemen. I hope every child in the country is close to a loud speaker at this moment. Great moments in history are not frequent and it now seems eminently proper to me that the first practical international broadcast should convey the thanks of the world to the founder of this Age of Light and that you and I and our children should be allowed to listen in. The next voice you will hear, ladies and gentlemen, will be that of our London announcer."

And then in a country, blazing with light, vibrant with the emotion only such an event as this can evoke, will come a great international broadcast.

———o———

HELL'S ANGELS AGAIN

Gaetano Gaudio has been released from his contract at Warner Brothers by General Manager Koenig in order that he may return to Caddo for the purpose of re-making the dramatic sequences of "Hell's Angels" with sound.

Brother Gaudio will set up for his first shots on August 26th. The recall of Gaudio by Producer Howard Hughes is a fine compliment to this fine cameraman.

———o———

AT FIRST NATIONAL

By LES ROWLEY

Buddy Longworth is busy shooting publicity stills.

—

Lyman Broening is dieting on cheese cake and milk.

—

The 659 gang on "Loose Ankles"—Sid Hickox, director of photography; Bill Adams, Buddy Laughton, Nelson Larabee, George Beckman, Palmer Belmont, Jack Alton, Al Smalley, Les Rowley, stills.

—

John Seitz is rehearsing another speech. This is the second one.

—

Smiling Bud Laughton is the beau brummel of the studio.

—

Sid Hickox is not only a cameraman; he also repairs garage doors.

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Present Projector Aperture Size

and Methods Used to Project Movietone Subjects

BY

R. H. McCULLOUGH, *Supervisor of Projection and Electrical Equipment, West Coast Theatres*

Not more than a year ago sound reproduction, in theatres, was only a novelty, but now it is a popular, legitimate entertainment. Theatre patrons now can very easily determine the difference between good and poor sound reproduction. Good projection is required along with good sound. The one great question, which is before the entire industry at the present time, is the restoring of the Movietone picture to normal size. Many projection departments in theatres, have solved this problem, but not to the satisfaction of the producer.

There are two methods used at the present time to restore the Movietone picture to normal size. The lens method is used in many theatres. The practice of using a masking piece, attached to the screen, so that it may be pulled on and off the screen as desired to cover up the space omitted, because of masking the sound track at the aperture, is also used in many theatres. There are several theatres where they do not use anything. Of course, we do realize that the importance of this subject has been dealt with very lightly by producers. However, it is one of the most important of subjects and one which everyone in the industry should endeavor to give consideration.

First of all, we have to give a dignified sound picture performance. Two picture sizes are objectionable in any theatre, when the same height remains and the width is reduced. When Vitaphone or silent subjects are being presented, they are normal width and height, but when Movietone subjects are presented, it is not only necessary to mask the sound track at the aperture, but the space on the screen, which is omitted, must be taken care of. The Movietone picture appears very square in theatres having steep angle throws, and our audiences are not accustomed to this type of projection. Manufacturers of sound equipment have not made any effort toward helping to correct this unsatisfactory situation. By using a shorter focal lens, and an undersize aperture, the present Movietone picture can be restored to normal size. This necessitates the changing of lenses and apertures when projecting Movietone and Vitaphone subjects. A clamp is usually placed around each one of the lenses, so that the focus will be unchanged when interchanging lenses. Fifty per cent of our theatres use the lens method and the remainder are using the screen masking piece. As most of you know, the present Electrical Research Products Inc. Universal Projector Base cannot be moved sideways. This is one reason why more theatres are not using the lens method for restoring the Movietone picture to normal size. When using the lens method it is necessary to center the Movietone picture on the screen, so as to compensate for half of the sound track width, and when using an undersize aperture, as the height is reduced proportionally.

We have many sound installations with the Three Point Type-S Simplex Base, which can be moved sideways as desired. However, we have a few installations with the Electrical Research Products Inc. Universal Base using lens mounts on Simplex mechanisms, which can be moved slightly parallel sideways, and which centers the picture as desired, so that the lens method can be used. When the lens method is used we cut a portion off the top and bottom of the picture. We have requested a few studios to keep their objects within 19/32, so as to avoid this.

When using the mask on the side of the screen it is either manipulated by hand or remote control. However, the operation is smooth, but the appearance is very undignified. The mask, called the Movietone Flipper, costs less to install than the lens method. This mask is installed and supported on a slote fastened to the top of the screen and is operated by an endless chain at the side of the screen. The width of this mask varies, according to the picture size. Cable clamps are clamped to the cable at two places, which act as stops, so when the mask is pulled on and off the screen, it will stop at the same place.

We do not believe either of these methods is satisfactory, as it is only a temporary method of correcting a detrimental condition in our theatres. However, the producers are the only ones who can correct this undesirable condition. Our recommendation would be to standardize on one size camera aperture in all studios, and that this aperture size be used when taking Silent, Movietone or Vitaphone productions.

We do realize that it would take some time for this to be worked out to everyone's satisfaction, but nevertheless it would improve a very serious unstandardized situation. Theatres would have to change their objective lenses, providing they wished to maintain their present picture size, but not necessarily, because if the picture were reduced it would only require additional material to mat in the normal picture size to the reduced picture size and, also, all projector apertures would have to be changed to conform with the camera aperture size. This new aperture size would have to be proportionate to the normal size picture aperture.

The standardizing of one aperture size will eventually be adopted by many producers. However, we must not forget the fact that, probably within the next year, we will be projecting the wide film in many theatres and this problem will have to be gone over again.

The entertainment communication and sound with motion pictures depend entirely upon the progress of the Research and Engineering departments of the various crafts connected with recording and sound reproduction.

LOCAL BOY MAKES GOOD

How does it feel to win a $12,500 prize? Ask William T. Scanlon of Local 666, Chicago, for that is just what happened to him last month. Illustrated by Raymond Sisley, Brother Scanlon's "God Have Mercy on Us," great prize winning story of the world war, begins in the August number of the American Legion Monthly.

The $25,000 prize offered jointly by the American Legion Monthly and Houghton Mifflin Company for the best war novel—a contest open to the whole world, the only stipulation being that every manuscript must be in English—has been divided equally, between William T. Scanlon of Fontana, Wisconsin, and Miss Mary Lee of Westport, New York.

Brother Scanlon holds a card in Local 666, I. A. T. S. E. and M. P. M. O. He is employed at the A. B. C. studios, and recently has been engaged in experimental work in talkies for that organization.

In January of 1918 the Second Division went into the lines in the reasonably quiet Verdun area. They heard their first shell at Dugny. But Scanlon's front line history really begins with the Second Division's march into the Chateau Thierry sector at the end of May, and that is where his prize-winning novel begins.

"God Have Mercy on Us" is a wonderful translation into words of the deep psychology of the mental and spiritual problems confronting the average man in the great war.

The plot of the story lacks the conventional hero, a conventional heroine and a conventional ending, but has a plot, in the strictest technical interpretation of the word, as clear as those of "Hamlet," or "The Scarlet Letter."

—o—

BORN IN SEPTEMBER

The members of Local No. 659 whose birth month is September are numerous and puissant and they are willing to challenge the children of any other month to contest with them in any game ever invented—nothing barred. They also claim to be the handsomest group in the calendar and the greatest favorites with the ladies. Their birth-stone is a brick bat and their favorite color green (long). Here they are:

M. A. Anderson, Arthur E. Arling, John W. Boyle, William Bradford, Wilford M. Cline, Cecil Cooney, Harry H. Cooper, Jackson Eagan, A. F. Fernandez, John Finger, Perry Finnerman, James M. Fort, J. W. Fuqua, Pliny Goodfriend, Joseph M. F. Haase, J. B. Harper, Forrest E. Hershey, Paul Hill, Newton J. Hopcraft, Allen E. Irving, Clifton Kling, Eugene Kornman, Anthony Kornman, John S. Landrigan, Lionel Lindon, J. R. Lockwood, Bert Longnecker, Jack Mackenzie, John McCormick, Enzo Martinelli, Clifton T. Maupin, Russell L. Metty, Raleigh B. Nichol, Raider B. Olsen, Harry L. Osborne, Robert Wm. Pittack, Arthur Reed, Michael Santacroce, James B. Shackelford, William Snyder, Harold Stine, Herbert C. VanDyke, John P. Van Wormer and Robert H. Wagner.



Our beloved readers in Tek-Nik Towne will have to wait another thirty (30) days before they can have the pleasure of reading the offerings of our new contributor, the Russian modernist, Kameravitch Tripodoffsky. But he is on the way. Be patient.

Earle F. Walker, well known for his photography on the "Toots and Casper" series for F. B. O., is the latest cameraman to join the Technicolor staff. Earle is at present going through the school course required of all cameramen who undertake the operation of the Technicolor precision machines.

Jack Smith, A.S.C. and Mrs. Smith, have returned from a two-year sojourn in Siam and Burmah, where Jack has been shooting elephant stuff and, incidentally, the coronation of the new king of Cambodia. He brought back 50,000 feet of film on Eastman stock and, like Len Roos, is in a hurry to get back to the Orient where, he says, there is more freedom.

WHAT HO! THE STILL MAN

Elmer Fryer, portrait photographer and head of the still department at First National-Vitaphone studios, is responsible for a novel idea that is bringing results. Every day Fryer selects the best work of each still man on the lot and places it on exhibition in the producer's and director's dining room at First National. In this manner the best efforts of the set still men are brought to the attention of both directors and producers. As a result of this method the still cameramen are getting more attention from the directors in the matter of shooting stills, either on location or at the studio.

D. A. Whitson has a wonderful machine at his home called a Telegraphone, The pioneers in sound recording and reproducing will remember this great piece of apparatus of fifteen years ago. It is altogether different from the recording and reproducing machines of today and in many ways more efficient. It operates upon the principle of "spotted" magnetism along a traveling steel wire. The sound can be instantly played back and played many thousands of times without any deterioration or it may be instantly "erased." It can be amplified in the same manner as either sound track or disc.

LYNCH TO TECHNICOLOR

Warren Lynch, cameraman of many years standing in the Pacific Coast studios, has added his name to the Technicolor family. Warren is at present taking the "school course" preparatory to future work in the production field with the color cameras.

S. M. P. E. to TORONTO

Mr. L. C. Porter, president of the Society of Motion Picture Engineers, announces that the Board of Governors has decided to hold the next meeting of the Society in Toronto, Canada, October 7 to 10, inclusive. Canadian and other members of the S. M. P. E. have been making an insistent demand for a convention to be held in Canada as none have been held there since the one in Ottawa, October, 1923. As the spring meeting held in New York last May was highly successful from every standpoint, greatly increased the membership and made the industry much better acquainted with the activities of the Society, it is believed that the attendance will be very large at the coming Toronto meeting.

WHY HOLLYWOOD?

There may be some surprise at the fact that no other part of the American continent has challenged the supremacy of California. A few producers have tried to work elsewhere, but more of them have drifted back to Los Angeles. One of the reasons seems to be that many subsidiary industries have grown up around the film industry in Los Angeles. There are employment agencies where any number of players required to make up film crowds may be obtained at few hours' notice. There are firms which have collected all kinds of furniture which may be required in film production. There are costumers who can clothe a Roman army or a mob of the French Revolution. All these adjuncts are to be found on Hollywood's doorstep, and the producer who strays from California soon finds himself in difficulties. And, however perfect the technique of interior work may become, there will always be a certain number of scenes on which work must be carried out in the open air, and on about 350 days each year the sun shines on Hollywood. Within a day or two of Los Angeles there is to be found almost every conceivable sort of scenery, from icy mountain to coral strand. Some day, perhaps, some other part of the American continent may throw down a serious challenge; but for the next generation at any rate the position of Los Angeles as the centre of the American film producing industry seems to be unassailable.—London Times.

VERITAS FILMS

Frank R. Church, executive manager of Veritas Films, 829 Harrison street, Oakland, Calif., writes **The International Photographer** the following interesting letter setting forth the plans and purposes of the new organization. Cameramen who have film to sell might find it profitable to get in touch with Veritas:

With a full appreciation of the great and growing importance of visual education in all institutions of learnng, Veritas Films are seeking, in a modest way, to supply a much needed vehicle to act as the clearing house through which an economic outlet shall be open to Education films from all parts of the world, in the end that students of our public schools may have the historic, scenic, beautiful and truthful brought to their class room free from selfish propaganda or distortion.

The Motion Picture Industry of America has reached its present greatness as a national industry mainly as an **entertainment organization.** We believe there is a field for educational films as a **major product** and that such films can be made entertaining as well. We are geared to serve this field and we invite you to write us if you have any exceptional negative in your vaults that in your opinion is suitable to reduce to 16 m.m. for class room screening and which will serve to make our school children better acquainted with a true "close-up" of things abroad in an impressive way, not attainable by a study of text books.

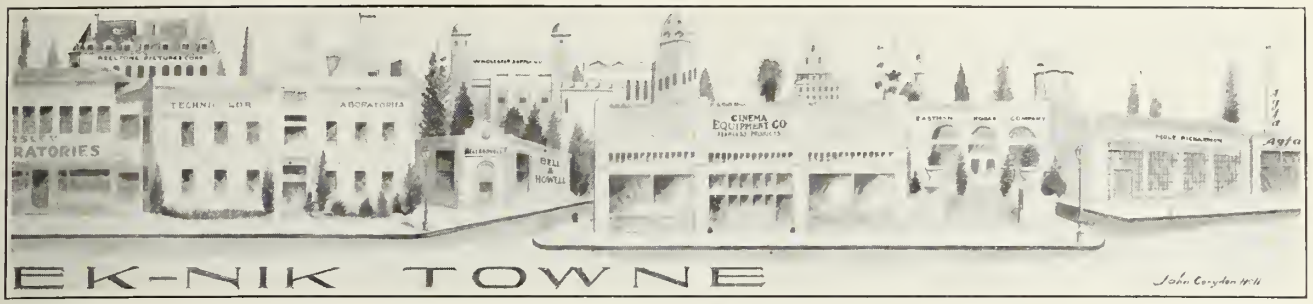
We are prepared to supply you with assurances of our integrity in our business relations, to insure a wide distribution, and to pay a reasonable royalty for the right to handle your film.

We realize there is a wealth of film reposing in vaults throughout the world that has never been screened; not for lack of merit, but for want of proper channels to put it across. This we wish to supply. We do not promise you great returns, but we do assure of an honest and capable guardianship and accounting.

We are pioneering. In time, we feel that you will be satisfied with an ever-increasing return based upon the merit of the product you entrust to us.

The Eastman Kodak Co. announces a stock issue of $15,000,000 to take care of an expansion program including a cellulose plant in Tennessee; new wholesale and retail stores here and abroad; manufacturing plants in France and Germany and to finance two new subsidiaries, Eastman Teaching Film, Inc., and the Recordak Corporation.

Len H. Roos, I. A. T. S. E., 659 and president of 665, Toronto, Canada, was recently notified by the General Council of the Royal Photographic Society of Great Britain that he had been voted a Fellowship and may now write F.R.P.S. after his name. This is a great honor and naturally Len is a bit puffed up about it. His signature now looks something like this—I. A. T. S. E.; M. P. M. O.; S. M. P. E.; A. S. C.; F. R. P. S.



Technicolorings

You do not often see the Technicolor cameraman's name on the screen. This little review of current screen successes with the boys who worked on them will show you that the Technicolor cameramen are doing some of the most popular of modern talkies.

* * *

Cameramen — Frank Good, Henry Kruze, Bob Tobey.

Productions—"Under a Texas Moon," "Golden Dawn," "Song of the West."

* * *

Cameramen—Ray Rennahan, Roy Musgrave, Carl Guthrie.

Productions—"Redskin," "Gold Diggers," "Vagabond King."

* * *

Cameramen—Chas. Schoenbaum, Milton Bridenbecker, Frank Bender.

Productions — "Sally," "Doll Shop," "Song of the West."

* * *

Cameramen—Friend Baker, Lee Davis.

Productions—"Captain Crack," "Sally," "Song of the West," "M-G-M Short Subjects."

* * *

Cameramen — Howard Greene, Ira Hoke, Earl Stafford, Chas. Geisler.

Productions — "Paris," "Rio Rita," "Hollywood Review."

* * *

Cameramen—Allan Davey, John McBurnie.

Productions — "Paris," "Fashions," "M-G-M Short Subjects."

* * *

Kains to Technicolor

Maurice Kains has again joined the Technicolor camera staff after an absence of more than two years.

* * *

The new two-story building housing Technicolor's camera and research departments is rapidly nearing completion on Seward street.

Ed. T. Estabrook, head of the camera department, has installed complete facilities for taking care of the delicate mechanisms of the Technicolor cameras. His camera shop and machine shop are second to none in the industry.

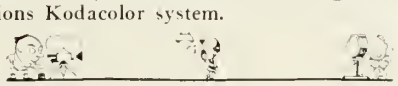
Adjoining the camera shop is a developing and drying laboratory capable of taking care of all mechanical tests necessary to the proper operation of the battery of cameras now in the field. This laboratory is operated by two shifts of experienced laboratory men who give immediate service to Technicolor cameramen making photographic tests.

Under the management of Gerald MacKenzie a department devoted exclusively to the maintainance of prisms and filters has been installed.

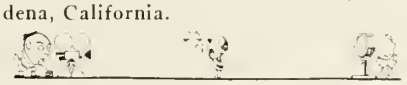
A major portion of the building is now being fitted with laboratories and optical apparatus for use in research and experimental departments under the direct supervision of J. A. Ball, assisted by Arthur E. Pierson.



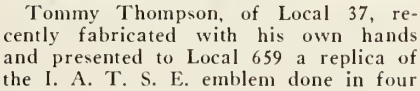
The new Eastman Kodak building was host to the A. S. C. on the night of August 5. About sixty were present, President Seitz presiding. It was a color symposium participated in by Emery Huse, who spoke on "The History of Color;" Lewis Physioc, who spoke of color from the angle of the artist; J. A. Ball, of Technicolor, who talked of that process and exhibited a reel of Technicolor film; Max Dupont, inventor of Vitacolor, who exhibited a reel of 16 m.m. in Vitacolor and explained his process; Earl Broaden, of the Eastman Kodak Co., who elucidated that organizations Kodacolor system.



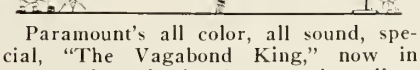
Brother J. N. Giridlian, Local 659, when not shooting pictures, is the leading Iris specialist of Southern California. Giridlian's Irises have nothing to do with cameras. They are lillies and the Giridlian collection embraces hundreds of varieties of the lovelist Iris flowers in the Golden State. He has been six years getting together this collection and if you are interested you can find his Southland Iris Garden at 976 Palm Terrace, Pasadena, California.



E. P. (Ted) Curtis, new general sales agent of Eastman Kodak Co., flew back to Kodak Park, Saturday, August 11, after a hurry up survey of the raw film market in Hollywood. Mr. Curtis finds trains entirely too slow for the administration of his big job and will henceforth use the airways.



Tommy Thompson, of Local 37, recently fabricated with his own hands and presented to Local 659 a replica of the I. A. T. S. E. emblem done in four colors of silk chenille. It is a beautiful piece of work and Tommy has the enthusiastic thanks of Local 659 for his charming gesture of good fellowship.



Paramount's all color, all sound, special, "The Vagabond King," now in course of production boasts a long lineup of 659 cameramen. From the Lasky studio come Henry Gerrard, Harry Merland, Wilbert Wright and Clifford Shirpser. From the Technicolor Company: Ray Rennahan, Roy Musgrave, Ira Hoke, Carl Guthrie. The production is being "gaffed" by Jimmie Seim of Local 37.

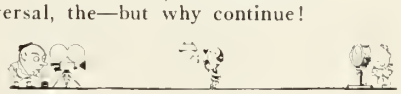


UNIVERSAL THE WONDERFUL!

A dispatch to the *Film Daily* from Hollywood says:

Hollywood — Universal is eliminating screen credits for film editors, cameramen and assistant directors. The producers claim the appearance of too many credit titles on the talking screen detract from the introductory music. On future Universal pictures, the main credit card will carry the name of the company and the name of the picture. The second card to be flashed will have the names of the author, continuity and dialogue writers, supervisor, costume director and recording system. The third card will carry the name of the director and the fourth, the cast.

Such an order is little short of a stroke of genius. It would be difficult to imagine a mind great enough to conceive so wonderful an idea. Surely it could originate only in Universal—that birthplace of immortal pictures—and the generosity of it! The title is to carry the names of the author, continuity and dialogue writers, supervisor, sound recorder, casting director, all these are to be played up, but to hell with all film editors, assistant directors and cameramen! Why employ cameramen at all? All they do is to photograph the picture. Surely so resourceful, so self-contained and so enlightened an organization as Universal could find a way to dispense with a little thing like photography! Universal, the Co-operative! Universal the Progressive! Universal, the Generous! Universal, the—but why continue!



Harry L. Viets, tonsorialist de luxe, of 6478 Santa Monica boulevard, conducts a Union barber shop that has no superior in point of expert service in Hollywood. The feature of his wall decorations is the skin of an immense python probably twenty feet long, which Harry says is his mascot. Wherever that skin is business prospers, and according to Harry, the python is very useful in his own country as an exterminator of vermin and rodents. He is often domesticated, is a gentleman in behavior and cleaner than any other kind of pet.

The First News Weekly

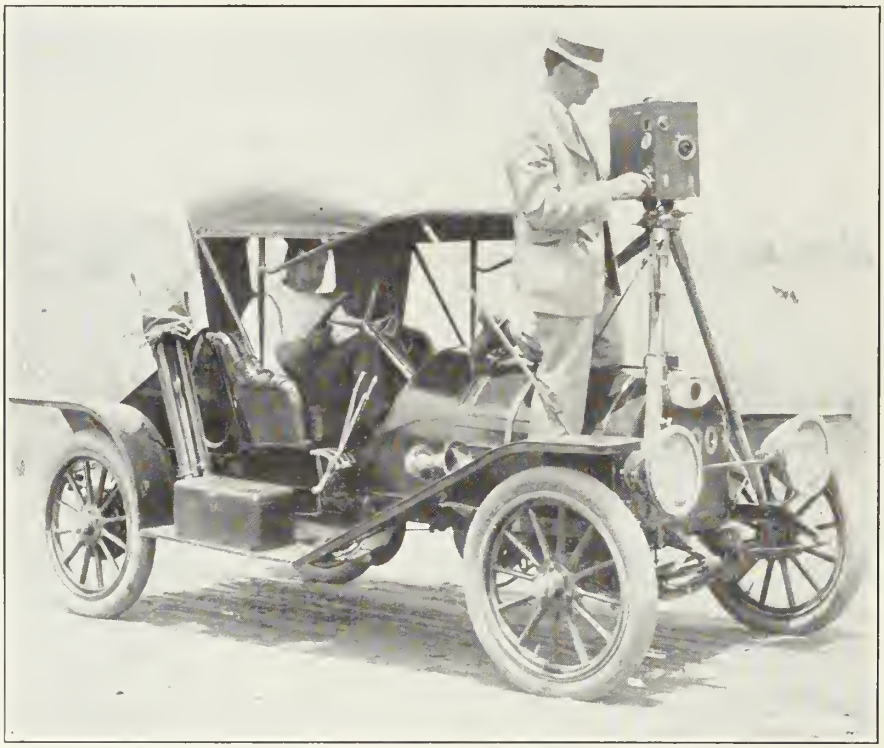
The first news weekly in motion pictures was *"The Argus Weekly,"* organized in 1912 by Enrique Vallejo, Harry Revere, Dal Clawson and Bert Longnecker.

Its slogan was "The Argus Eye Sees All" and its home was the two little bungalows which stood at 4500 Sunset where the Tiffany-Stahl studio now stands, the site being also the original Griffith studio.

In these bungalows those pioneer NEWS men had a laboratory, dressing room and office and they prospered from the beginning.

Their first releases were the various Los Angeles theatres like Clunes, Talley's, Lyceum, Burbank, etc., and they were all set to make a fortune when Pat Powers came along one day and convinced the boys that what they needed was to make feature pictures and, after brief negotiations, they traded *"The Argus Weekly,"* E. M. F. runabout, Lumiere camera and an assorted lot of camera angles for a lease on a parcel of ground up near Del Monte with the privilege of using the sky, ocean, woods and the old Carmel Mission *ad lib.*

What happened to the new group of producers is another story but *"The Argus Weekly,"* under Mr. Powers, forged ahead and was later absorbed by other weeklies which were organized by the larger companies just then coming into the production field.



The row of trees back of the hay field is Vermont Avenue; the car is standing on Sunset Boulevard just opposite the site of the old Griffith Studio; Hollywood Boulevard follows the line of telegraph poles just over beyond the contented cow. Bert Longnecker is driving the E. M. F. and Enrique Vallejo is the sheik grinding the Lumiere.

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The Oldest Commercial Laboratories in the U. S. A. and the Only Independent Laboratories Equipped with Spoor-Thompson Developing Machines.



This illustration shows the Akeley Gyro Tripod in actual use by the Western Electric Company, taking sound moving pictures.

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. . . anticipated necessity
with a tripod ideal for Sound Pictures

"GIVE us the best camera tripod that human ingennity can devise!" This was the demand of the sound cinematographers.

It was characteristic of the Akeley Company that its research laboratories had already anticipated this demand and were putting on the market such a tripod—a tripod quiet in operation, capable of great speed and flexibility, vibrationless but light, staunch yet easy to manage.

The Akeley Universal Gyro Tripod, containing the famous gyro mechanism, stands today a leader in this latest field of photography. This tripod is in constant use in many leading motion picture studios making Sound Pictures. These studios include Metro-Goldwyn-Mayer, Fox-Case Movietone, Pathe and Paramount. Other world wide corporations, such as Radio Corporation of America, Westinghouse Manufacturing Company, Western Electric Company and General Electric Company are enthusiastic users of the Akeley Gyro Tripod in their important work. We i vite you to write for full description of this Tripod and details of our deferred payment plan.

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WARNER NICHOLS CROSBY

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Traveling Heavy

Extra Girl: "Why do elephants have such big trunks?"

Earle Walker: "Well, they have to come all the way from Siam."

— :: —

From Missouri?

Speed Mitchell: "I just heard that one of the girls in the "Paris" chorus takes a shower and dresses in three minutes."

Script Girl: "Why, that isn't so wonderful."

Speed Mitchell: "I like to see you do it."

— :: —

Temporary Address

Roy Klaffki, Chicago.

— :: —

Sound Stuff

M. Hall (on location in San Diego): "I object to that new assistant for a room mate. He is such a sound sleeper."

Assistant Director: "I should think that would make him an ideal roommate."

M. Hall: "You wouldn't think so if you listened to the sounds."

— :: —

Weeps

Henry Gerrard says the most pathetic sight now-a-days is a horse fly sitting on the rear bumper of a motor truck.

— :: —

Hopeless

Disgusted Cameraman (eating by mistake in a "scab" restaurant): "Waitress. You can't expect me to eat this stuff. Call the manager.

Waitress (not from Local 639): "It's no use; he won't eat it either."

— :: —

Prussic Acid

Billy Marshall: "Heard of the latest Hollywood bootleg drink?"

Cliff Shirpser: "No, what is it?"

Billy Marshall: "Frog whiskey. One drink and you croak."

— :: —

Or Drive Mules

John Mescal: "Son, do you know what becomes of little boys who use bad language when they are playing marbles?"

John Junior: "Yes, Dad; they grow up and play golf."

Impertinent

Chuck Geisler: "You'd never think this car was second-hand, would you?"

Howard Greene: "No; it looks as though you had made it yourself."

— :: —

Scotch

Are you a mechanic.

No, a McBurnie.

— :: —

The Director Speaks

First Chorus Girl: "The director spoke to you. What did he say?"

Second Chorine: "Git out of my way."

— :: —

Schwischmixstrische!

Bill Margulies: "In Finland they call bootleg liquor korpikunsen kyyneleita."

Harry Merland: "Mi gosh! What do they call it after they drink some of it?"

— :: —

Cinch

Allan Davey: "There is only one thing I can say for a non-union assistant cameraman and that is you can always tell what he is going to do next."

Carl Guthrie: "And what is he going to do next, Allan?"

Allan Davey: "Nothing."

— :: —

Idolatry

Eddie Linden: "That second chorus girl in the front row of the "Paris" review at First National certainly made idolators of the Technicolor boys."

Sol Polito: "How so, Eddie?"

Eddie Linden: "She put on cloth of gold stockings so they'd worship the golden calf!"

———o———

Earl Stafford and John McBurnie are sorely tempted to put in a request for "flight money" after being called upon to perform a hazardous aerial acrobatic stunt shot from the extreme end of the M-G-M elevator boom.

The boom was extended to a height of eighty feet, with the two Technicolor boys, hoping for the best, on the business end of the contraption.

The shots were successfully made, and will be seen in the Technicolor sequence of the M-G-M feature, "Road Show."

King Charney says . . .

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WHETHER IT BE TALKIES OR SILENT

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CANADIAN CAMERAMEN RISK DEATH

By A. M. BEATTIE

TORONTO, Canada.—Two Canadian cameramen, members of the Local Cinematographers Union No. 665, left recently on assignments that will take them into the great uncharted wilderness of the far north.

As this is being written George Rutherford, representing the Ontario Government Motion Picture Bureau, is winging his way by aeroplane into the vastness of the district of Patricia, the great hinterland of the Province of Ontario.

It is his privilege to record by the medium of cinematography one of the most remarkable land transactions in the world's history, for this month the Indians of this great district will cede 129,000 square miles of virgin forest and lakeland to the Province and to complete negotiations Government representatives must cover 2,200 miles by air. Cash in payments for the lands will be carried and will amount in all to approximately $500,000.

Mr. Rutherford's duties will comprise making a complete and exhaustive record of the event. To do this will take more than a month and will necessitate his going to parts never before visited by white men. It is estimated that he will use ten thousand feet of film on the story.

Representing Film and Slide, 156 King Street West, Toronto, Fred S. Huffman left, June 21, for Alaska, where he will sojourn for the next three months. His work will take him to parts unknown to white men. While in Alaska he will make a picture of the Valley of the Ten Thousand Smokes, a scenic wonderland as yet almost unknown.

—o—

HUGHES AND KEARNS GO UNION

Saw Leo Hughes and Eddie Kearns eating dinner at Reeds Day and Night Cafe on Santa Monica boulevard the other evening. This is a Union House and deserves a lot of support from Local 659. The cafe is near Cahuenga avenue and, therefore, easily within reach of everyone. Just tell the girls you pack a Union ticket and watch the service.

—o—

M. A. Anderson is shooting sound stuff for Carlsbad Productions.

ROY H. KLAFFKI

ALVIN WYCKOFF
GLad. 3995 HEmp. 4197
HEmp. 1128

Ira B. Hoke
now with
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The Daily Grind

By RALPH B. STAUB

TED TEZLAFF says his assistant is a bookkeeper—he keeps every book that Ted loans him.

* *

CHICK McGILL says his tooth is the largest in the world—it's an acre.

* *

TONY GAUDIO says his wife never was in Washington—but still she's the speaker of the house.

* *

BOB KURRLE tells about the Scotchman who hurried into the telegraph office and asked the cost of a night letter. The clerk told him the price and that the signature was free. The Scotchman in return replied: "You may not know it, but my Indian name is will-be-home Friday."

* *

JACK YOUNG says he has a friend who would shoot you in the back and then turn around have you arrested for carrying concealed weapons.

* *

GUS PETERSON says you can tell a flapper as much today as you could her mother, but she won't believe half of it.

* *

Watched ARTHUR TODD, LYMAN BROENING and BILL FRAKER working on the Eddie Cline set at the Fairfax high school. Doug Jr. and Loretta Young play the leads in the Warner noisy cinema.

JACKSON ROSE says the Hollywood stadium holds 3,000 people and every Friday night 5,000 men tell their wives they're going to the fights.

* *

IRA HOKE (entering hat store, to clerk): "How much for the hat?"
Clerk: "Fifteen dollars."
IRA: "Where's the holes in it?"
Clerk: "What holes?"
IRA: "For the jackass to put his ears through that would pay you fifteen bucks for that hat."

* *

NORB BRODIN says an able assistant is one who cleans and sets up your camera each morning, cashes your check and takes your wife to dinner when you want a night off.

* *

JOE WALKER is photographer of Belle Baker's first starring picture at Columbia. John Silver is the second cameraman. Erle Kenton directing. Ralph Graves co-stars with Miss Baker in her first tear jerker.

* *

SID HICKOX chirps—the Hollywood girls have been so mean to him and made him walk back from so many auto rides that he finally decided to buy a car of his own.

* *

I. A. T. S. E. famous last words: "Are you getting any new subscriptions for our magazine?"

OUR TRANSLATOR

Victor Scheurich, of 659, is the official translator of **The International Photographer.** Brother Scheurich speaks German and French fluently and is also a writer in these languages. He is a native of Berlin and learned the cinematographic art with such organizations as Meester, German Biograph and Kinemacolor. He had the honor of photographing Germany's first sound picture while associted with Meester, and came to Hollywood to get the American angle of picture making.

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Color

BY

EMERY HUSE, Motion Picture Film Department, West Coast Division, Eastman Kodak Co.

A year ago the Motion Picture Industry generally, and Hollywood particularly, was just entering seriously the field in sound photography. At the present moment color photography, or rather the anticipation of it, is in the minds of all motion picture producers. It is the desire of the author of this article to call to the attention of those interested in the general subject of color some of the underlying physical facts of color photography together with an historical resume of what has been done in this field.

One must first go back appreciably and review somewhat some of the fundamental facts in the study of light. From the physicist's point of view, the study of light is a study of activity which originates in luminous bodies and causes the sensation of vision when it enters the eyes. There are two distinct phases in the study of light, first, QUANTITY which deals with differences in brightness and, second, QUALITY differences are classified under the phenomena of color.

Sir Isaac Newton made many advances in the study of light and his many experiments lead him to believe in a certain hypothesis. Newton was the first to get a clear idea of color, which idea he attained through a study of glass prisms. He was the chief advocate of the corpuscular theory which maintained that light consisted of very minute weightless material particles. It is rather a strain on the imagination to think of material corpuscles flying with enormous speed through a solid substance like glass with so little hindrance as glass seems to offer to the passage of light. It is also somewhat difficult to explain the phenomena of reflection and refraction under this theory. Color was accounted for by differences in size and shape or in some other characteristics among the corpuscles.

The newer, and at present accepted, theory considers light as made up of waves acting in much the same way as waves produced by disturbances in a body of water. Under this theory there is little difficulty in explaining reflection and refraction. Furthermore, color is accounted for very simply by the supposition that differences in color correspond to differences in the length of the waves. The medium in which these waves act is termed "ether" which means that empty space has properties other than mere extension; properties that enable disturbances carrying energy to pass through, the passage requiring finite time. We know from absolute measurement that light travels at a rate of approximately 186,000 miles per second.

Prior to actual work on the recording of color photography it is necessary to consider somewhat the theories of color vision. One, that of Young and Helmholtz, is a purely physical theory, while another, that of Hering, is psychological. These two theories are given considerable weight. The Young-Helmholtz theory considers that the retina consists of three distinct sets of nerve fibers, each giving a single sensation, one set a red sensation, another a green and the third a blue-violet sensation.

The Hering theory deals with three primary sensations and postulates certain contrasts caused by chemical changes under the influence of light in three hypothetical fluids.

Our present existing knowledge teaches us that there are three primary colors and these three colors are blue, green and red. Newton at one time advanced the theory that there were seven primaries. However, based upon work by physicists and psychologists, it is pretty well established that blue, green and red are considered universally as the three primaries.

Three-color photography is based on the fact first discovered by Clerk Maxwell about 1860 that all colors can be matched by a mixture of the three primary colors: red, blue, and green, if the proportion of these constituent colors be rightly chosen. The work of Maxwell was based on the discovery by Young in 1807 that all color perception is the result of three fundamental color sensations singly or in various combinations and proportions and it is safe to say that the work of Maxwell is the foundation upon which three-color process of natural color-photography is based.

Prior to Maxwell's time such men as Seebeck, Becquerel and Daquerre did quite a little experimental work on the reproduction of color but they were handicapped by the fact that they could give only a partial reproduction and had no way to fix their images.

Later on natural color photography necessitated the use of a light sensitive dye which dye faded out to a colorless substance. A dye is decomposed only by the light which it absorbs, which color is complimentary to its own color. Certain aniline dyes bleach comparatively rapidly in light, hence after three such dyes are chosen so as to form the three fundamental colors, red, green and blue-violet and these are coated on a white surface such as paper in three separate layers and the whole exposed to a colored object, in red light, the blue and green dyes are bleached out leaving the red. In the same way in blue light, blue will be left as red and green are bleached out and in the case of green, red and blue are bleached out, while the colors which are mixtures of these each will be bleached in direct proportion to the amount of the fundamental colors present.

Processes based on this principle were conceived by such men as Cros in 1861, Leisegang in 1889, Ives in 1891 and others up until 1910.

Despite the apparent simplicity of the process, it has never furnished a satisfactory solution to the problem of natural color photography. It was difficult to secure three dyes having the proper color and of identical light sensitiveness and it was further difficult to prevent further bleaching of the dye after exposure.

In 1897 Prof. Lippman, of Paris, devised an ingenious process of color photography dependent upon the principle of light interference. Lipman's method was to expose a specially prepared fine-grained transparent emulsion of silver chloride in contact with a bath of mercury which reflected back into the emulsion, the waves of light which reached it, thus setting up in the sensitive film the phenomena of interference. This process, however, although extremely interesting, was little more than a laboratory experiment from the standpoint of producing photography in natural color.

This brings us back to the time of Maxwell who, as previously stated, did the basic work on the principle of three-color photography.

In natural color photography there are two very general classifications, the additive and subtractive processes. As a general statement the additive process of color photography can be summed up in the statement that we start with a colored light from which we produce white by addition. In other words, we take red, green and blue and by an additive method produce a white light. Photographically, this process may be analyzed as follows:

The color sensation negative records by density the presence of that particular color in the subject, i. e., the red sensation negative records the red of the subject in terms of greater or lesser density according to the amount of red present in the various portions of the subject. A positive transparency from this negative will reproduce the red sensation by means of its clearer parts. The parts of the subject containing the purest red will be represented by clear glass, those parts with some red by a medium density, while those parts containing no red whatever will be of maximum density. Now if this transparency is viewed in red light it will reproduce the red sensation of the original subject. In a like man-

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ner the blue and green transparency will, when viewed in blue and green light, reproduce the respective color sensations of the original subject.

The three records may now be combined and the natural colors of the subject reconstructed by presenting each transparency with its proper filter in a viewing instrument. This may be done by projection with the use of a triple lantern in which case the red, green and blue transparencies will be projected simultaneously from the lantern forming one picture in natural color on the screen. This process of color photography reached its highest development in the hands of Mr. F. E. Ives, whose Kromscope has never been surpassed for absolute fidelity in color reproduction. This, then outlines very briefly the additive process of color photography.

The triple lantern is wasteful of light and there are other defects in the additive process which make it somewhat unsatisfactory commercially. The subtractive process is a more commercial method and is the much more widely used. In subtractive processes the three negatives through the red, green and blue filters are taken as in the additive process but they are printed to be used as superimposed prints, each print being made in a color which is complimentary to that of the taking filter.

Let us consider our discussion of the subtractive process as confined to still photography in the making of prints. When we print from the red sensation negative we are printing from the thinner parts of those parts which represent the absence of red in the subject, hence the red sensation negative must be printed not in red, but in a color which completely absorbs all red. In other words, the red negative is printed in its complimentary color that is blue-green. The green negative, therefore, will be printed as magenta, and the blue negative as yellow. Superimposed in full strength these colors absorb all color and the result is either black or gray according to the amount of light reflected. Intermediate colors are produced by the mixture in various proportions of the three fundamental colors, while the total absence of color will produce white, provided we are printing for example on white paper or if we are printing a transparency to be viewed by white light. It will be observed that in this case we start with white light from which we produce color by subtracting various colors, hence the name "the subtractive process."

These two processes may be differentiated one from the other very simply as follows: The additive process is one in which we start with colored light from which we produce white, while the subtractive process is one in which we start with white light and from which we produce color by subtracting various colors.

The present day commercial processes are most generally based upon the subtractive principle and it is quite probable that those processes which will be most successful commercially, from the motion picture viewpoint, will be those making use of this principle.

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P. J. Danby, an exhibitor of Sydney, Australia, is sojourning in Tek-Nik Towne. He and our Len Roos hobnob together when Len is rambling around in the Orient. Mr. Danby declares that there are no pictures like the Hollywood product.



GOOD SUPERVISES "GOLDEN DAWN"

Frank B. Good, one of the most widely known cameramen in the profession, has been appointed as chief Technicolor supervisor for the Warner Brothers' Productions. Brother Good is now in charge of the Technicolor unit engaged in photographing "Golden Dawn," a Vitaphone feature adapted for the screen from the famous Shubert operetta.

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The Color Camera Outdoors

BY

GEORGE BARR BROWN

The history of Hollywood could be written around the motion picture camera, just as vividly and dramatically as the cinema film unfolds to the world pulsating human stories, powerful spectacles and events of interest that take place in the remotest corners of the globe.

A new chapter has been added to this modern romance of our mechanical age. And William Rees, of Local 659, one of the youngest directors of cinematography in the industry, plays a leading role in this newest romance of motion picture photography.

Color photography, developed by Technicolor, is an interesting chapter in the fascinating advancement of cinematography. The production of feature length talking motion pictures filmed entirely in natural color is hailed as the most important individual contribution to the screen since the movies first acquired a speaking vocabulary a little over three years ago.

Although color has been known to the screen for many years it is only within recent months that it has acquired outstanding importance in film manufacture. To the Warner Brothers is given credit for the first all color talkie of feature length ever to be shown, "On With the Show."

However, an all talking all color feature, produced in the great outdoors, presented new difficulties never before encountered by producer, director, players, or cameramen. Once again the Warners pioneered in making "Under a Texas Moon," featuring Frank Fay, Myrna Loy, Racquel Torres, Armida, and others, an all color, all talking special filmed in natural locations. William Rees was assigned director of cinematography. Michael Curtiz, who made "Noah's Ark," was entrusted with the direction.

With cast and story ready for production Curtiz and Rees chartered an airplane. From the air they traversed practically every square mile of Arizona in search of suitable locations. For three days they looked from the skies down upon the wilds. But their quest was fruitless.

Finally Victorville, Red Rock Canyon and Palm Springs Canyon were selected as suitable spots. The coloring of the land and rocks lent themselves admirably to color photography.

In addition, huge sets were constructed on the Warner Ranch, formerly the Lasky Ranch, where a major part of "Under a Texas Moon" was made.

The first day's shooting brought about a revelation in motion picture photography. Rees and his staff of assistants learned many things and their ingenuity is responsible for innumerable difficulties being over come.

In the first place, color makeup on the players went under stringent tests. As there were several white characters in the cast, the majority of whom played dark skinned Mexicans, a contrast in complexions had to be maintained. This was accomplished by throwing more light, by indirect means with either reflector or lamp, on the faces of those enacting Mexicans. Their color tones were, therefore, registered heavier on the color film.

Variation in angle of the sun's rays brought about unforeseen problems. As the sun gradually sets in the west its rays strike tiny particles in the air causing a red "overcoat," which is a distinct vermilion glow even noticeable to the human eye. This red tinge distinctly registers on the color film, throwing a reddish haze over the entire picture.

It was impossible, therefore, to photograph with sunlight late in the afternoon. Rees found it possible, however, to continue work by the use of a large black silk overhead diffuse. The complete elimination of direct sunlight did away with the red "overcast." In other cases, he found it advisable to throw in a few incandescent lamps in addition to the overhead diffuse in order to insure photographic matching.

In other cases, also, old Sol played havoc with established motion picture traditions. With the changing of shadows on rocks and other natural backgrounds, the cameramen found more food for their inventive minds. They could not linger with the taking of such scenes, as the colors of the rocks and surrounding country changed with the moving sun and shadows. Speed was necessary. When for any reason, the takes were not satisfactory, and the scenic backgrounds assumed different hues than formerly photographed, it was up to Rees to improve on Mother Nature herself.

In these cases, incandescents took the place of the sun. However, they had to be placed exactly as the sun itself formerly shone on players and backgrounds. No little maneuvering of the special Technicolor glass, monotone filter, was necessary to match incandescent lamps with the sun's rays.

This was not the only case where man improved on nature or moved the old Dame about to comply with his needs.

It was found that nature made no mistake in choosing green as her basic and most prominent shade. Technicolor reproduces green and blue-green in gorgeous hues, but no definite and distinct individual blue registers itself. Hence the studio painters did themselves proud with green paint. Like the artist who painted the lily, they painted the desert palm trees a vivid green. Other brush and shrubs was tinted with the painter's green as well.

Constantly by the side of the camera tripod, a standby painter remained at the beck and call of Cinematographer Rees. It was necessary to keep him on hand as many time spots had to be touched up, trees given a delicate daub here and there, and many unsuspecting places revealed themselves in the monotone filter.

Oftimes as many as six cameras were lined up on a single seeting. Each revealed defects in coloring that the other did not pick up, and the painter in such cases worked overtime touching up places in respect to each separate camera. Even brightly colored flowers were planted in the desert scenes to add luster to the desolate wastelands.

Various shades of purples, as mauve, lavender, orchid, and so on, do not register, it was discovered. Whenever these tones are used, either in costumes or sets, the result on the negative is a muddy gray.

Nature's fickleness in her changing moods, caused Rees to resort to other artificial methods on numerous occasions during the making of "Under a Texas Moon."

Many times it was necessary to cut out all sunlight entirely. Artificial lighting was found, at certain times of the day, to facilitate more even tones of colors. This was particularly true with "closeups" of the players, where even shades were demanded for each type throughout the entire production.

But even the incandescents presented their problems. The strength of the illumination could not be too hot or too soft. A happy medium was needed. If the lamps were too soft, the quality of the color suffered. If they were over hot a white streak greeted the eye in the projection room, instead of even color tones. In back-lighting "closeups" particularly, the players had to be lighted with infinite care so that the light rays were not too hot to produce a white light streak.

While the heat in a talkie camera booth is hot enough for any desert sheik, sufficient lamps to illuminate a color scene causes almost unbearable heat upon the players.

Here Rees was able to make things comfortable for the artists. When shooting at the Warner ranch, he was forced to use sets of incandescents. Aided by the summer time heat of California's sun, a high temperature was generated. So, Rees ordered his electricians and grips to organize an indirect lighting system. By focusing the lamps on reflectors, rocks, and even light pieces of cloth material, the heat of the lamps was greatly decreased while little of their illuminating power was wasted.

So far as photographing such an outdoor sound picture as "Under a Texas Moon" is concerned, there is little difference in regard to synchronization except for a few isolated instances peculiar to color cinematography.

Color cameras, which make a far greater noise when in motion than an ordinary black and white camera, must be placed in special booths. The newer blankets, "bungalows," and boxes over the camera head, do not furnish sufficient sound deadening for the sensitive microphones.

The Color Camera Outdoors



Upper right, William Rees all set for difficult shot in "Under a Texas Moon"; center, The "Under a Texas Moon" caravan on location in Arizona; lower left, Cameraman Rees lining up for a trick shot; lower right, Raquel Torres and Frank Fay, of the cast.

Long focus lenses are used in the majority of closeups.

However, the troupe used the newest studio portable sound recording equipment to excellent advantage on the entire picture.

Thus another chapter has been written in the enthralling romance of modern cinematography, and William Rees, Local 659, one of Hollywood's youngest directors of cinematography, has played an important part in its development.

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FREDERIC COLBURN CLARKE

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Last week a young lady implored me
(It's shameful to give her away)
To make her some beau-u-tiful portraits—
A present for her fiancee.

* * * * *

I had to retouch out her wrinkles,
Eradicate many a mole:
I etched out superfluous birthmarks
Down just where her double chins roll;—
Her eyebrows both needed reshaping,
Her big waist I had to make small,
She surely was knock-kneed — I fixed them—
Her mother won't know her at all!
I'm out to make pictures for money,
As everyone wants to look smart—
Result: I just keep on retouching
And call the damn business "High Art!"

THE CELLAR CAFE

Members of Local 659, looking for a good place to eat will find it in the basement of the Markham Building, Hollywood, right under Local Headquarters. The grand opening of this new market for comestibles is taking place as this book goes to press and if it's always as good as the opening bill it will be a desirable place to invest your food money. Ask for B. B. B. and tell him you're a member of Local 659.

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Britain's New Labor Cabinet

Labor's Big Five All Sons of Laborers—High Culture Among the Twenty-seven Ministers

BY

CEASAR SAERCHINGER, *Assistant Chief, London Bureau of the New York Evening Post*

To those who know little of the import of the Labor movement throughout the world and who are inclined to take alarm whenever the term "Labor Union" is used, a careful reading of this reprint of Caesar Saerchinger's letter to the New York Evening Post is commended—likewise to members of Local No. 659. Almost the first act of the MacDonald government was to stop construction of certain British war ships, a constructive gesture toward peace, if it did throw several hundred men out of employment. Who says Labor has no ideals outside of power and money-grubbing.—Editor's Note.

In estimating the political complexion of the new British Government the diarist of the Evening Standard says that it consists of "two ex-members of the I. L. P. and two present members, two Fabians, six ex-Liberals, two ex-Conservatives, eight representatives of trade unions and one member of the Co-operative Party." It might be said, on this evidence, that it runs from red through all the shades of pink to faded blue.

There are, of course, other ways of sizing up the group of men who have undertaken to rule the world's biggest commonwealth for the next two years or more. As the avowed representatives of the working class they are perhaps not as "proletarian" as one might expect. In



fact only six out of twenty-seven are or have been out-and-out working men. Six more belong to the white collar brigade of clerking, shop-keeping and small officialdom and one is a working journalist. The rest are definitely what the Englishman does not mind calling "upper class."

Four of these are lawyers, four are professional economists and scholars, one an ex-general. The remainder are sons of "gentlemen" who have devoted themselves to politics. One hesitates to call them professional politicians, since that is a term of deprecation in America. In England politicians are not people who make a living out of politics but those who can afford to spend money on it. They are in the majority in any government constituted by the Conservative or Liberal Party, but even among the Labor Party there are such "swells" as Lord Ornold, Sir Oswald Mosley, Sir Charles P. Trevelyan, Captain Wedgwood Benn and Noel Buxton, whose ancestors have labored so that they might devote themselves to the gratifying and ornamental career of public life.

The Big Five

The cleavage between the English classes is fixed in school and it sticks all through life, irrespective of success, position and power. By this token the members of the new Government are almost equally divided into upper and lower classes. Fifteen of them have been educated in upper class schools and universities, twelve others have had to be content with a common school education or no schooling at all.

These twelve, however, comprise most of the important members of the Cabinet, the core of which is made up of Labor's "big five." These five men, Ramsay MacDonald, Philip Snowden, Arthur Henderson, J. H. Thomas and J. R. Clynes, are all sons of laborers, and most of them have labored with their own hands at the manual trades. Henderson was an iron molder, Thomas an engine driver, Clynes a textile worker, and so was Tom Shaw, the Minister for War. William Adamson was a miner's son and himself went down the shaft when he was eleven. F. O. Roberts, the new Minister of Pensions, was a compositor and later an official of the Typographical Union.

Ramsey MacDonald himself started life as a farm lad, became a pupil teacher at twelve and after coming to London made his living as an invoice clerk, getting $3.75 a week. In spite of his humble beginning he is recognized today as one of the great intellectuals of the party, its greatest idealist and its logical head.

More than any of his working class colleagues he has stripped off the working class manner and become one of the most polished and diplomatic men in public life. His personal charm must have been a great factor in his success, and if he is an idealist he is also ambitious and autocratic. When he was thirty he married a niece of Lord Kelvin, and for seventeen years his wife helped to groom him for the great position he would one day occupy. Even America can show no more striking case of the self-made man.

Philip Snowden, the Chancellor of the Exchequer, was a Yorkshire weaver's son and by dint of his great head for figures got into the civil service, where he spent seven years. There he studied economics and became a Socialist. Snowden is all head and no body.

A little man, he walks about on two sticks, having been crippled in a bicycle accident many years ago. His brain bristles with figures and facts. In spite of being a Socialist he is a personal friend of Lloyd George and has in common with him a fondness for music. This is shared by his wife, who has the reputation of being one of London's musical hostesses.

Culture, indeed, is by no means absent from the Labor Cabinet, for MacDonald is credited with considerable understanding of art, Cynes shares the Snowdens' enthusiasm for music and F. O. Roberts is an amateur violinist who doesn't mind sporting his musical gifts in public.

A surprising number of the Cabinet are active churchmen. Henderson is a staunch Methodist and George Lansbury, the pinkes tof the party's flaming left-wing Reds, is a faithful Anglican and a former church warden. Both are teetotalers. Lord Parmoor has a long career as an ecclesiastical lawyer, was vicar general to the Church of England, as well as attorney general to the Prince of Wales. Lord Justice Sankey, the new Lord Chancellor, fought against the dis-



establishment of the Church of Wales and wrote the constitution of the church when disestablishment came. And A. V. Alexander, who has been placed at the head of the Admiralty as a heavyweight pacifist to hold the admirals down, is a former Baptist lay preacher.

Colorful Lot

If the Conservative Government, except for the mercurial Winston, the redoubtable Jix and Chamberlain's mon-

ocle, was rather drab, there seems to be no dearth of "characters" in the Socialist one. There is, to begin with, Thomas, whose blatantly plebeian outlines, unconcealed by the inevitable dress suit, are to the cartoonist an inexhaustible source of mirth. Thomas, who is said to have told an after-dinner audience how the policeman on duty in Downing Street took him for a plumber instead of his Majesty's Home Secretary, appears even funnier now, decked out with feudal title of Lord Privy Seal. He is, incidentally, one of the best after-dinner story tellers in England, and at his best when the laugh is on himself. The expensive cigar is as much of a trade mark with him as the homely pipe is with Baldwin. He doesn't mind being taken for a plutocrat or even a parvenu.

Clynes is the opposite type of self-made man—the class-conscious type. This little man, white-haired and white-mustached, bristles with importance and with zeal for his own kind. He was one of seven children of an Irish laborer in the Oldham slums, and the outstanding memory of his youth is how he spent six cents a week on candles learning words out of the dictionary.

He organized the Lancashire Gas Workers' Union and is still president of the National Union of Municipal Workers. He is fond of uttering weighty epigrams like "Life is higher than constitutions and constitutions must be adapted to preserve it," but manages to get himself taken seriously most of the time. His self-sacrifice in favor of party peace, which raised MacDonald to undisputed leadership, has earned him the undying gratitude of the party.

Tom Shaw, the new Secretary for War, is hardly less picturesque than Thomas. He is a large, burly North Country man with a big, booming voice. As organizer of the textile workers he is primarily interested in his own kind, but he has an international outlook and is a favorite in the House. When he was Labor Minister in the last Socialist Government he countered criticism with the remark: "I can't produce rabbits out of a hat."

Another real "character" is that new recruit to the party, Lord Justice Sankey, now Lord Chancellor. He is a bachelor, aged sixty-two, and has been a lawyer and a judge all his life. He never bothered about politics and spends his spare time tramping over the Surrey Downs, of which he knows every inch.

His dress suggests a tramp rather than a High Court judge. When on assizes he was always known to walk into town, having got off the train eight or ten miles out. He is never in a hurry but always on time. Sankey came into national prominence as chairman of the National Coal Commission of 1919 and showed his independence by rendering a minority report signed only by himself. It advocated the nationalization of the mines.

A Leader of the Bar

In violent contrast to him is that other recruit to Socialism, W. A. Jowitt, the new Attorney General. At forty-four Jowitt is not only the acknowledged leader of the English bar but its handsomest ornament. He is one of those creatures on whom the gods shower all their gifts—beauty, wisdom and wealth.

The prequisites of the Attorney General's office are in the neighborhood of $200,000 a year, yet Mr. Jowitt is said to be "sacrificing" a more lucrative practice to his political career. He is probably the subtlest cross-examiner in Britain, and his selection as the Crown's chief advocate is a very popular move. Incidentally, he will give the Tory debaters in the House their money's worth.

The oldest member of the new Government is Sidney Webb, one of the pioneers of English Socialism and the party's great theorist. He and his wife, Beatrice Webb, the "ideal couple" of politics, who already figured prominently in H. G. Wells' novel, "The New Machiavelli," personify the intellectual side of England's radical movements during the last fifty years. They are so inseparable that somebody suggested that Webb's title, when raised to the peerage (as he will be), should be Lord Sidney of Beatrice. The seat, at any rate, will be occupied by "the Webbs."

The two "swells" of the Government who carry their past most lightly—almost flippantly—are Lord Thomson and Sir Oswald Mosley, husband of Lady Cynthia and one of the richest men in the House. Lord Thomson was a brigadier general, and his father was a prominent soldier before him. He comes of died-in-the-wool Tory stock and finds zest in living it down. He smiles—or winks—whenever he is addressed as "my Lord" and takes particular pleasure telling about the snobs who simply won't understand that "I'm no blooming, bloody lord."

Oswald Mosley, who once said he wouldn't use his title when he got it, is now always ostentatiously referred to as "Sir Oswald Mosley, Bart." With his thirty-two years, his slender figure and fetching little mustache, he is sure to be one of the brightest ornaments of the front bench, and in the ornamental office of Chancellor of the Duchy of Lancaster he is not likely to have to stand much cross-fire from the Tory questioners. Not that he couldn't. He and Lady Cynthia will be the cleverest as well as the handsomest couple in Parliament.

The first and only woman in the Cabinet, Miss Margaret Bondfield, a kindly, motherly looking woman of fifty-six, is sure to come in for a lot of this criticism and questioning, and it will be difficult for cartoonists to resist the gibes that the unprecedented figure of a lady Privy Councilor suggests. Already they are busy suggesting a female uniform which will be in line with the traditional cocked hat, gold-incrusted tail-coat and knee breeches of that ancient dignity. What is to be done?

But Margaret Bondfield in Downing Street is worrying about other things. On her first day of office she surprised the permanent officials and clerks by getting down to work before they had arrived, and within two days she had sent orders to Geneva to ratify the Washington eight-hour convention, held up by the Conservatives for years.

Margaret Bondfield started life as a store clerk and continued to be one for eleven years. But during that time she organized the store clerks of Britain into a big union and soon figured as labor delegate to the United States, France and Russia. Of all the people at the Labor Ministry she knows what labor is. A simple, shy, homely, businesslike woman.

Sports of 659

GOLF TOURNAMENT SET FOR SEPTEMBER 8

BIGGEST EVENT IN HISTORY OF LOCAL

EVERYBODY ENTERING— WONDERFUL PRIZES

WATCH SCHWAB'S SHOW WINDOW

All right boys, here's the dope I promised in last issue about this Golf Tournament of ours. Believe me, the prizes are just rolling in and it does my heart good to see how everyone is taking to it. I don't believe we are going to have a slacker in the organization and, to make a huge success of this annual pastime, a lot of boys are starting to handle golf clubs that never had one in their hands before. In all seriousness this is going to be one of the greatest events in the life of Local No. 659, that is, in the sports line.

Now, as to the prizes, I'm not permitted to tell just what they all are at present, but I'll mention one or two just to make things interesting. As to Low Gross prize I might state that a beautiful perpetual trophy will hang on the walls of the organization from now on and the name of the winner of each annual tournament will be inscribed thereon. That is just a feeler for you to go on.

Also, some beautiful prizes from E. O. Blackburn, of J. E. Brulatour, Inc., Eastman distributor; Smith & Aller, Dupont distributors; King Charney, Agfa distributor; Dore Schwab Clothing Store; Mitchell Camera Company; Roy Davidge Film Laboratories, and many other firms of Hollywood. All prizes will be on display, thanks to Mr. Schwab, in the Schwab Clothing Store window, the week prior to September 8, the date set for the tournament. Oh, yes, I forgot to tell you the date has been advanced by the golf committee on account of Labor Day being a double holiday.

Now listen fellows, I'm going to let you in a little secret, and don't want you to tell a soul. King Charney, of Agfa; Wesley Smith, of Dupont; E. O. Blackburn, of Eastman, are going to play in a foursome with the other member, a 659 man, to see that these three worthies do not fail to count any strokes and to see they play according to rules. I'm sure these gentlemen are friends now and we want them to continue to be so. Now here's the gag. The loser of this match is to pay for the refreshments and lunch. How's that? In speaking of these players I know that Blackburn and Smith both play a mean game of golf, but I'm figuring Charney as a winner. Of course this is very confidential so don't breathe it to a soul.

There will be boys around the studios with blanks to fill out for entries and handicapping to take care of the boys who have not had the chance to get in to the office. Here's to the success of our first annual tournament.

P. S.—(Pretty swell). All about baseball in the next issue.

Out of Focus



BANG! BANG!

Jax Rose said that he did very little shooting on his last picture, but that on the next one he would shoot himself.

* *

SOCIETY NOTE

I had dinner with O. O. McIntyre recently. He sat in a booth and I sat at the counter at Amelia's Chili Hutch on Western avenue. Amelia said he was better looking than his picture, too.

* *

SUBSCRIPTIONS

If everyone was to get those two blanks for subscriptions filled we would get more advertising and could sell this page and then you would not have to read it every month.

* *

HELP!

Teacher: Give me a sentence with the word hurdle in it.

Young Punk: If you don't pay your dues Howard hurdle get you.

* *

SPEED

I just finished a six-reeler in five days. I have figured it out that if I didn't have to use sound or cameras I could do it in two days.

* *

RED SEAL

The name of the Red Head at Bennetts is ceil.

* *

I WONDER

What became of the sound engineers that used to come out of the booth, clap their hands and say move that light 2 feet.

What became of old "Appetite Bill"?

What makes "Uncle" George Melford look younger every time I see him?

What became of "Goertz Iris complete for motion picture purposes"?

What I can say about the new membership card that I have? Oh, boy!

* *

FAMOUS AFFINITIES

Ham and Eggs.
Tom and Jerry.
Buckwheat Cakes and Sausage.
George Barnes and Gregg Toland.
Rock and Rye.
Bob Kurrle and Al Greene.

* *

Jean Smith tried the eighteen-day diet and claims it is no good. He ate it all the first day.

* *

Paul Perry has a new Ford coupe and a contract. (Lease.)

* *

Frank Good says things look bright for Technicolor. (Especially in the reds.)

HIGH HATS STILL AT LARGE



We could not run this picture last issue as we had to have permission from the Audubon Society. If you will refer to last issue you will find a very interesting article on page 97 or "Last Page" concerning the High Hats and their Habits.

* *

HOUSEHOLD HINTS

(For wives of members in good standing)

Milk is effective as a beautifier when used on the skin. But always remove from the bottle.

Objectionable spots can be removed from china with a hammer.

This magazine can be kept dry in the bath if pasted on the ceiling.

Remove the pulley wheel and spool from 400-foot magazines and they can be used for fruit or nut bowls. The covers can be used as a model for flapjacks.

Hard boiled eggs are hard to fry, but easy to burn up.

Sprocket perforations sprinkled on spinach make it more attractive.

A few spring belts and a leather belt or two mixed with the spaghetti causes the laugh of the evening.

Mitchell oil, although more expensive than olive oil, is not good for salads.

* *

Ray June has Mitchell Legs, Rubber feet, Bell and Howell head, an Iris arm and a silent movement and still feels "Swell."

* *

Roy Klaffki receives his fan mail under the name of Klassky.

* *

Well known vaudeville man to play the San Quentin Circuit.

* *

Paul Hill is about to sign a new contract. He has been warned that any complaints will not come under the Motion Picture Agreement.

CORRESPONDENCE

Dear Mr. Out of Focus: I read your article on the use of filters in the last issue and enjoyed it very much. Don't you think a gravity filter is much better than a pressure filter. Answer: You must have been reading the plumbers' magazine.

* *

Dear Sir: My name has been in the papers all over this country and it is spelled Mescal, not Miscal as in your last issue. John is the first name and M-E-S-C-A-L is the last and I play some golf. Answer: We will try to inform our membership that you play golf and that the last name is Mescal pronounced Chev al yay.

* *

International Photographer: I am curious to know who "Speed" Hall is. Will you tell me something about him as I see his name in each issue. Answer: He is the only assistant cameraman that wears three vests and a trench coat in the summer time and is cold. Photos, 2 for 25 cents.

* *

Dear Gents: I saw a photo in your last issue headed "Silent Camera Hood," with Chas. Boyle standing along side of it. There is only one thing wrong with it that I can see. There is no room in the hood for him. Answer: I hope your rollers stick.

* *

Cameraman to Asst. Director: I'd like to have a big man with that little girl for the foreground.

Asst. Director (to next Asst.): Give the little girl a big ham. (Pat. applied for.)

* *

We have had a letter from our correspondent in Russia. He claims that the army does not recognize the 16-hour ruling and wants to know what to do. This letter was 30 days in reaching us, so by the time he hears from us the war will be over. Fedora Fedoravitch complains that Derby Derbyvitch did not report on the batlte of Umphyxgratpss. This causes a great deal of extra work for Fedora as he had to go and shoot it all over. Pavel Ivanovitch reports that the "First Verst is the Worst." Three days before they arrived opposite the Chinese town of No Dring Kere word was sent by our Chinese correspondent, Mi Kno Dlink, that he hoped all of Fedora's negative would be over exposed. This calls for a reversal of the code of ethics or gentlemen's agreement. Gentlemen should be gentlemen even if they are cameramen. (Go ahead and sue me.)

* *

Mickey Whalen says it's a terrible strain on the constitution to get up at 5 o'clock and go swimming.

The "Three R's"—

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"RIO RITA"
ROBERT N. KURRLE

What a Combination!
What Photography!
What Film?

BIG COMBINATIONS
always *demand*

EASTMAN

PANCHROMATIC NEGATIVE FILM
(TYPE TWO)

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"RAMONA"
"REVENGE"

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NEW YORK HOLLYWOOD LONG ISLAND CITY

IN regard to the notice appearing in the Press recently announcing a merger of our Corporation with others, we wish to confirm this and, at the same time, assure our friends and customers that there will be no change in management or policy from the past, except that we will render better service if that be possible.

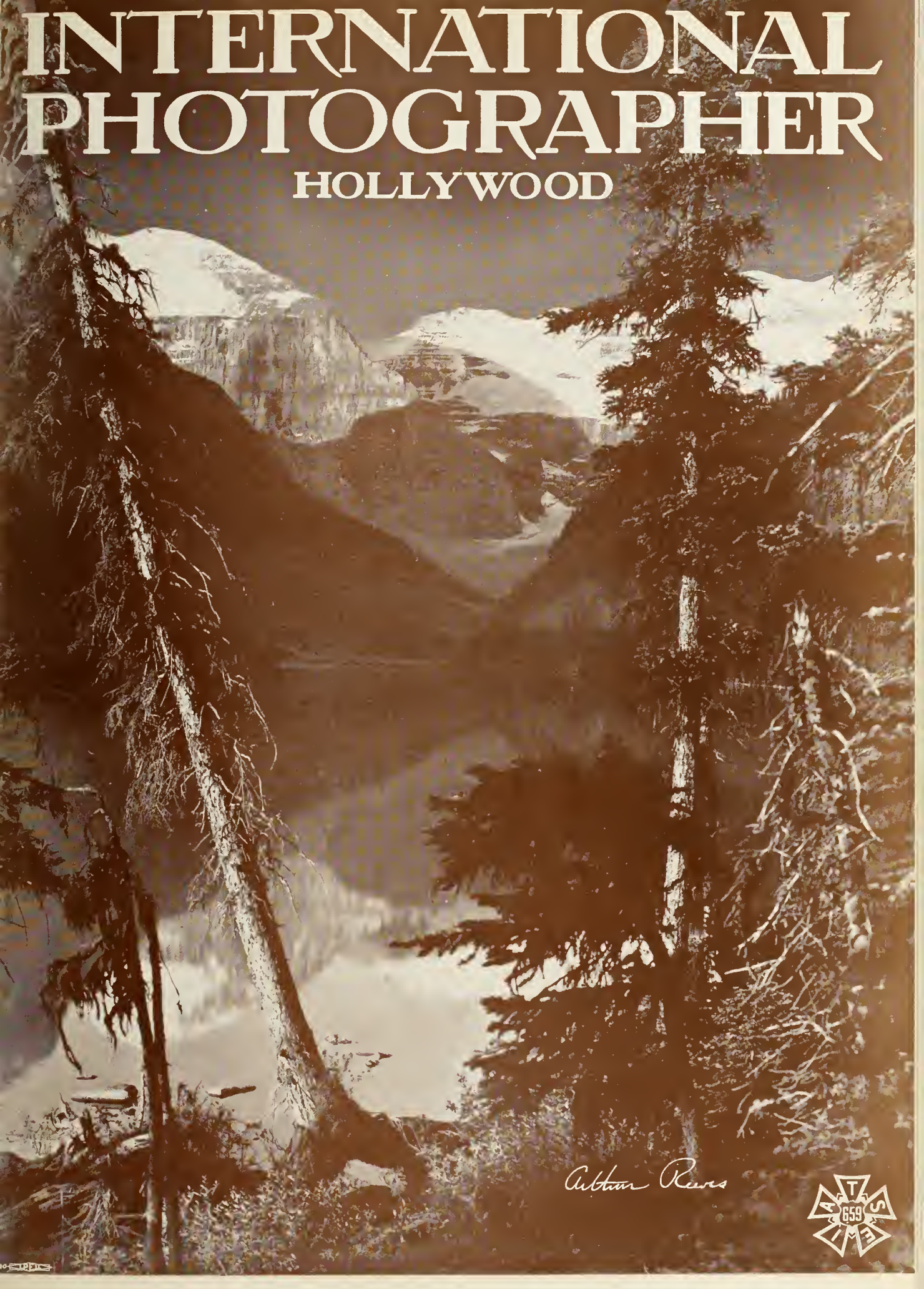


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INTERNATIONAL PHOTOGRAPHER

HOLLYWOOD



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The INTERNATIONAL PHOTOGRAPHER

Official Bulletin of the International Photographers of the Motion Picture Industries, Local No. 659, of the International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators of the United States and Canada.

Affiliated with Los Angeles Amusement Federation, California State Theatrical Federation, California State Federation of Labor, American Federation of Labor, and Federated Voters of the Los Angeles Amusement Organizations.

Vol. 1 HOLLYWOOD, CALIFORNIA, OCTOBER, 1929 No. 9

"Capital is the fruit of labor, and could not exist if labor had not first existed. Labor, therefore, deserves much the higher consideration."—Abraham Lincoln.

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The International Photographer published monthly by Local No. 659, I. A. T. S. E. and M. P. M. O. of the United States and Canada

Howard E. Hurd, *Publisher's Agent*

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Charles P. Boyle - - - - - - - - *Treasurer*

Entered as third class matter February 13, 1929, at the Post Office at Los Angeles, California, under the provisions of Section 435½ Postal Laws and Regulations. Permit No. 1997

Subscription Rates—United States and Canada, $2.00 per year. Single copies, 25 cents

Office of publication, 423 MARKHAM BUILDING, 6370 Hollywood Boulevard, Hollywood, California HEmpstead 1128

The members of this Local, together with those of our sister Locals, No. 644 in New York, No. 666 in Chicago, and No. 665 in Toronto, represent the entire personnel of photographers now engaged in professional production of motion pictures in the United States and Canada. This condition renders The International Photographer a voice of an *Entire Craft*, covering a field that reaches from coast to coast across the nation.

Printed in the U. S. A. at Hollywood, California

The Sound Track

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Sports of 659

By PALMER

Well, Brethern, I don't want to put myself in the class of the imbecile who says: "I told you so," but what I had to say about the Golf Tournament in the last issue just about came true. You timid boys who held out sure have a lot to be remorseful about, but I'm sure you will make amends next year. Let's make the next one bigger and better so get the clubs out on the links and start training now.

Now as to BASEBALL, let's have a meeting at the office on say Monday, September 30, at 8 p.m. All of you fellows that play ball and will stand by the organization in that capacity be here and we will set the balance of a baseball committee and get the ball rolling. Just pass the word along to the other ball playing brothers in case they don't happen to see this column as to the meeting, etc.

Now there is a dance floating in the air and as soon as we can get the ground crew ready we will land it. It will be in the near future so watch the mails for further information.

I have a large list of requests for every kind of sports and entertainment in existence, but will have to take them up as time permits. Bowling and handball will be on the calendar very soon.

P. S. (Prime Sports): Don't forget the Baseball meeting.

Labor Day Message

Cameramen who did not hear President William Green's Labor Day message will be interested in the following excerpts therefrom:

"Today is the forty-eighth anniversary of the establishment of Labor Day, the purposes of which are to consider the successes and failures of the year just passed and prepare plans for advancement of labor in the future.

"We find where the unions are the strongest, prosperity is the greatest. We also find that living conditions are better in places other than where intense antagonism is shown by the employers and other interests.

"Collective bargaining is coming to be more and more accepted as a preventative of labor disputes. It has averted many strikes and brought peace to industries that otherwise would have been in continual turmoil.

"The five-day week has marvelous support. More than 1,200,000 members of organized labor enjoy the five-day week and many employers who refuse to deal with labor have also adopted the shorter work week. More employees and more leisure mean greater consumption of products produced.

"We face the future unafraid and with every confidence will continue to struggle for greater and greater advancement of humanity."

BORN IN OCTOBER

Here is a list of names of the gang born in October (members of Local 659). They are a cocky lot and they have asked the editor to tell the September bunch that they accept September's defy and are ready to beat 'em at any game, especially golf.

The birth-stone of the sons of October is decomposed granite; their favorite fish is cod fish being born under the sign of Pisces, and their colors are pale prune and chameleon. They are inclined to be temperamental and prefer cigars to chewing tobacco. These people usually become cameramen if they live to be over seventeen. As they grow older their variable density gradually decreases. Their favorite confection is sauer-kraut. Here they are:

Ernest A. Bachrack, Clifford Blackstone, Frank H. Booth, Donald H. Brigham, Sherman Clark, Roscoe S. Cline, Max Constant, Ernest J. Crockett, Harry Davis, Joseph A. Dubray, Carroll D. Dunning, Arthur Edeson, Ed Elwert, Frank D. Evans, Edw. P. Fitzgerald, Frank B. Good, Clarence Graves, Carl E. Guthrie, Edwin M. Hammeras, Earl R. Hinds, Alexander P. Kahle, George F. Kelley, James V. King, Roy Kluver, Reggie Lanning, A. G. W. LaShelle, Paul A. Lockwood, Art Lloyd, E. L. McManigal J. Earl Metz, Nicholas Musuraca, Arthur W. Rice, Park J. Ries, Jackson J. Rose, Adolph L. Schafer, Roger C. Shearman, John Shepek, Jr., Oliver Sigurdson, Frank Tanner, Robert Tobey, George Unholz, Willard VanEnger, Michael Walsh, Frederick E. West and L. Guy Wilky.

Look for This Label



United Hatters of North America Label

On all felt and straw hats you purchase. It is printed on buff-colored paper and is sewed in the hat under the sweatband opposite the bow. No hat is union made unless it bears this label.

The Union Label is not only a sign of wholesome, clean standards of manufacture, but it is a symbol of Americanism, as the Union Label appears only on American-made products.

DEMAND THE LABEL

Loyalty to an ideal requires performance in small things as well as great. The Union Label deserves the allegiance of every unionist.

Thinking you should buy union-labeled goods, without doing it, gets you nowhere. The same is true of patronizing shops where the union card is not displayed or union buttons are not worn.

ROSE TO TIFFANY-STAHL

Jackson Rose has just signed a contract with Tiffany-Stahl and will henceforth exercise complete supervision of that virile young organization's photographic department. This contract is a just recognition of Brother Rose's well known ability as an artist and an expert in cinematography. Jack is one of the pioneers of the industry and has a fine background of achievement.

Of Course

Tillie: "Did your room-mate have a good time at the cameramen's dance?"

Annie: "I think she did. I noticed when she came home that she had broken a shoulder strap and burned a hole in her new dress."

Interdependence

"In the past, for the most part, men analyzed in solitude the facts before them; and they put down, without much mutual discussion, such vision as was vouchsafed to them. This procedure, it appears, was an error of high magnitude. We risk wasted effort when we use our narrowly limited individual resources in attacking problems which might yield to joint endeavors."—From an article by Harold J. Laski, in Harper's Magazine.

MR. LASKI might have been writing about the motion picture industry and, especially, about the Society of Motion Picture Engineers for, nowhere, has there been a greater awakening than that which has taken place among the individuals and organizations which have to do with the technical side of motion picture production.

A few years ago there was little spirit of co-operation among studio and laboratory workers, but it has been an inspiration to note, of late, the growth of this get-together sentiment, especially among technical men.

That this spirit has been inspired and fostered by the Society of Motion Picture Engineers, as pioneers, is unquestionable and the transactions of this organization yield abundant evidence that organized research is productive of the greatest good for all.

That often enunciated statement of the Lion of the Tribe of Judah: "Ye shall know the truth and the truth shall make you free," applies to cinematography, to projection and to all other of the elements of motion pictures as much as to religion, philosophy, ethics and art, for an imperfect lens is not a true lens; a defective emulsion is not a true emulsion; bad material is not true material and certainly there is no truth in methods that do not nearly approach perfection and that are not productive of supreme good.

One good mind is better than many inferior minds, but many good minds are infinitely better than one good mind and, particularly, when they are all working together to a common end—in this case the production of motion pictures approximating perfection.

Some minds are seeking the best (truest) emulsion base, some the best emulsion for all purposes; some seek more efficient lenses, purer chemicals, superior light sources, better materials and equipment, while many research for ideal methods of doing things and the outcome of all this intelligent labor, intelligently directed, shall be the cinema of the future, in every way better and finer, more efficient, more economical—a perfected whole making for the well being, prosperity and satisfaction of all who have to do with it.

The personnel of the S. M. P. E. is made up of mechanical, electrical, chemical, optical, sound and other classes of engineers, cameramen, projectionists, artists, designers, cinema architects and technicians of all kinds, the very life blood of the creative side of the industry, and their joint product is the sum total of the progress of the industry from time to time.

The S. M. P. E. constitutes the clearing house of ideas of the cinema throughout the world and these frequent meetings (twice a year) and the immediate broad-casting of their transactions (the complete report of the programs of these meetings) enables the whole world to keep in step with the progress of the industry.

The Cameramen of the industry, represented by the International Photographers of Locals 659, 644, 666 and 665; the Projectionists, represented by the M. P. M. O.; and the Projection Advisory Council, are all examples of the power of organization of the co-operative spirit.

These organizations are all represented in the S. M. P. E. and, while they have all contributed and shall ever contribute to the wisdom of the Society, they have also profited by its work and shall so continue.

The Cinematographers are vitally interested in the broad subject of projection just as the projectionists have come to be understanding of and sympathetic with the efforts of the cinematographers to bring beauty to the screen—all willing and eager to please that great public upon whose favor the whole structure rests.

The rapprochement between cameraman and projectionist will eventually make for immense good to the industry on its artistic side in addition to cementing into a fine friendship two great and important bodies of men both working to a common end.

Of such organizations and individuals is the S. M. P. E. composed and the rapidity of its growth in number and influence is the best commentary upon the use-value it is giving to the industry and to the public.

The closer the various departments of this great world structure called the cinema are knit together the better for all concerned and **The International Photographer** is glad to hail the S. M. P. E. not only as a pioneer for constructive good in the industry, but as an exemplar of that spirit of interdependence and co-operation which gives promise of the bigger, better things to come.

On to Toronto! Hail to Canada! More power to the S. M. P. E.!

S. M. P. E. to Toronto



ON Monday, October 7, the Society of Motion Picture Engineers assembles in Toronto, Canada, to hold its fall meeting for 1929. The attendance promises to be larger than usual as Canada is glorious in the autumn and, besides, the program is extraordinarily interesting.

Commenting upon the coming convention Col. John A. Cooper, president of the Motion Picture Producers and Exhibitors' Association, Inc., of Canada, recently said:

The Society of Motion Picture Engineers has a record of splendid accomplishment and I believe has been of practical value to the motion picture industry. With the coming of sound the motion picture industry was placed on a definite engineering basis and a partial, but important recognition has been given to this phase of the motion picture field. The Society of Motion Picture Engineers has done much to develop higher technical standards in this field. The organization through friendly contact and exchange of ideas, is working successfully to develop higher standards, better engineering practice and to encourage research, covering the entire field of motion picture production and exhibition.

No meeting of the Society of Motion Picture Engineers has been held in Canada since the one in Ottawa, October, 1923, but it is our expectation that we will be able to show what we think of the organization during the convention, which is to be held in Toronto, September 7th to 10th. On behalf of the motion picture interests of the Dominion of Canada, I shall take great pleasure in welcoming the members of the Society of Motion Picture Engineers and in extending to them every possible courtesy during their stay in Toronto. I feel quite sure that the people of Toronto will contribute their share in welcoming this very important organization, and the convention will be so successful the Society of Motion Picture Engineers will see that they are held more frequently in Canada.

Preliminary Program
(Subject to Additions and Changes)
of the
SOCIETY OF MOTION PICTURE ENGINEERS
at
ROYAL YORK HOTEL
Toronto, Canada—October 7-10 inclusive

MONDAY, OCTOBER 7TH

President's Address.
Committee Reports.
"The Human Equation in Sound Picture Production," by Terry Ramsaye, Pathe Exchange, Inc.
"Some Characteristics of Sound," a motion picture lecture by Howard B. Santee, Electrical Research Products, Inc.
"Reactions of the Public to the Talking Picture," by Harold B. Franklin, Fox West Coast Theatres.
"The Sound Film Situation in Europe," by M. D. Golden, Motion Picture Division, Department of Commerce.
"Cinematography in Soviet Russia," by Leon Monosson, Amkino Corporation.
"Sound Films for Surgical Instruction," by Dr. P. E. Truesdale, American Medical Association Gold Medalist.
Pre-view of Forthcoming Sound Film Productions.

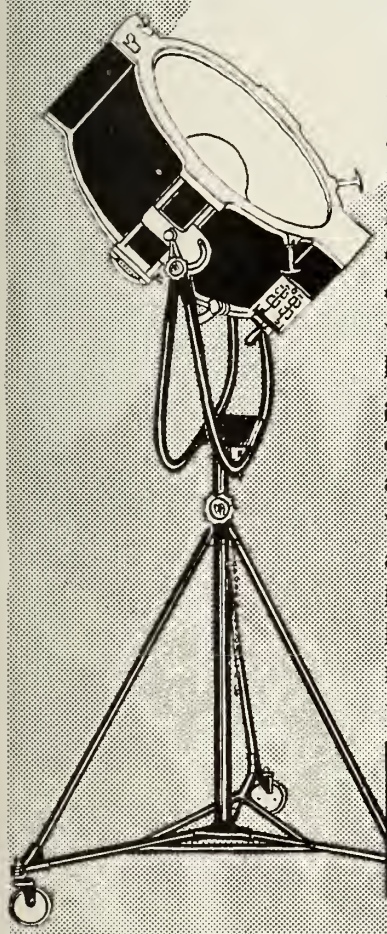
TUESDAY, OCTOBER 8TH

"The Trail of the Microphone," a motion picture lecture tour of the Hollywood sound studios.
"Some Fundamental Principles of Sound Recording and Reproduction," by Wm. H. Offenhauser, RCA Photophone.
"The Principles of Sound Recording and Reproduction by the Variable Density Method," by D. MacKenzie, Electrical Research Products, Inc.
"A Demonstration Talking Film," by Dr. Kingdom, General Electric Company.
"Studio Acoustics and Microphone Placement," by J. P. Maxfield, Electrical Research Products, Inc.

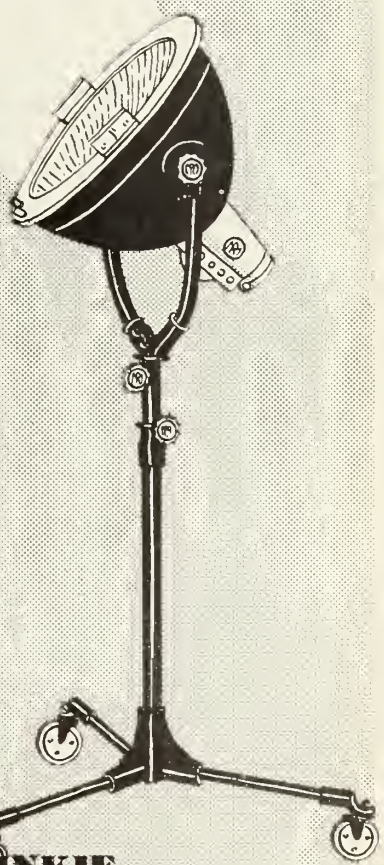
(Continued on Page 8)

SH!!

Shush me no shushes when INKIES are lighting the set, for INKIES have done away with all of the splutter and fuss which made antiques of old style carbon lights. There is another thing which we think you should know about INKIES. We who have initiated every fundamental design in studio incandescent lighting equipment, are spending all day, every day, week in and week out, trying to improve lighting standards for the photographic profession. As a natural outcome we have collected an accumulation of experience data which is available to our friends and customers at all times, to help them solve their technical lighting problems, whether or not the final prescription happens to be



INKIES



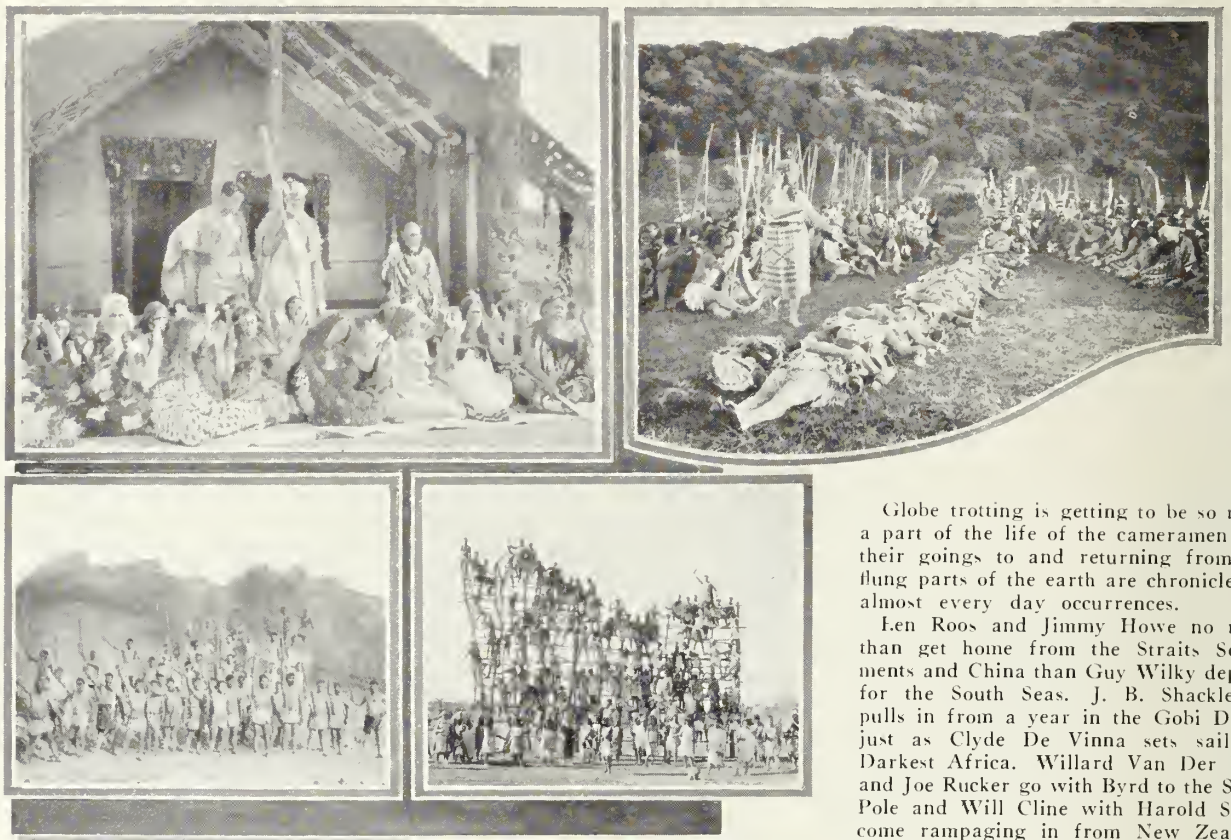
IF IT ISN'T AN (M) IT ISN'T AN INKIE

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Our Cameramen Among the



Globe trotting is getting to be so much a part of the life of the cameramen that their goings to and returning from far flung parts of the earth are chronicled as almost every day occurrences.

Len Roos and Jimmy Howe no more than get home from the Straits Settlements and China than Guy Wilky departs for the South Seas. J. B. Shackleford pulls in from a year in the Gobi Desert just as Clyde De Vinna sets sail for Darkest Africa. Willard Van Der Veer and Joe Rucker go with Byrd to the South Pole and Will Cline with Harold Smith come rampaging in from New Zealand with a picture whose working title was "Under the Southern Cross," but soon to be released in America as "The Devil's Pit." This picture, a Universal production, was directed by Lew Collins from a story originally by Alexander Marky, but re-written and scenarized by Mr. Collins. Cline, with Smith on the second camera, shot the picture and stills and turned in a fine piece of work.

This picture is a chapter from the history of the Maoris, the aboriginal people of New Zealand, a gentle, wholesome, brave Christian people with a long and interesting history.

Only Maoris were used in this picture and a simple, straight-forward story was told on the film which will add greatly to its charm. While a silent pic- in its form the wonderful Maori singing and chanting is used to fine effect and sound is utilized in sequences like the volcano scenes where it added to the general effectiveness of the whole.

The Maoris are famous singers and their music is melodious and dramatic.

The volcano scenes were shot on The White Island, fourteen miles off the coast of New Zealand, one of the largest active volcanoes in the world and which is called by the Maoris "The Devil's Pit."

The story is of two tribes, the Ariki and Wa-tee, ancient enemies who dwell on opposite sides of the great Devil's Pit, a smouldering volcano. Years before the tale opens, the great chief of the Arikis, Pakura, willed that his daughter was to wed either the son of the chief of the Arikis or of the Wa-tee,

---

LEFT OUT

Notwithstanding **The International Photographer** for October is four pages larger than the issue of September, it was found necessary to leave over to November, several interesting stories and features like Tek-Nik Towne; John Leezer's "Wonder Box"; an article by Louis W. Physioc; J. M. F. Haase's illustrated story of the photographing of Southeastern Alaska for Uncle Sam's Navy, etc., etc. But that only means that our November issue will be all the better. Look for it. Our big golf tournament required more space than the editor had reckoned upon.

———o———

LANDRIGAN RINGS ANOTHER

To John S. Landrigan, of the Paramount Famous Lasky still department, goes the prize for the "Most Beautiful Still of the Month," published in "Screenland" for October. The picture is a summer scene of rare beauty depicting Mary Brian and Neil Hamilton in a scene from "Kibitzer."

A last minute switch in production plans at Warner Brothers places William Rees as director of cinematography for "On the Border," an all-talking outdoor Vitaphone drama starring Rin-Tin-Tin, with William McGann directing. At one time McGann, who is an ex-cameraman, and Rees ground movie cameras together. Now McGann is making his debut as a director with "On the Border," having recently been elevated to that position by Darryl Zanuck, associate executive.

Maoris of New Zealand









to be decided in the Challenge of the Spear.

The son of the Wa-tee chief loses, when the two tribes meet, and Miro, the daughter of the dead chief, Pakura, is told to prepare for the wedding ceremony. But after the fashion of all womankind, she prefers the vanquished one, Patiti, and in meeting him clandestinely precipitates the death of Rangi, her betrothed, and war between the ancient enemies.

In the very midst of the fight, the Devil's Pit commences to belch up its fiery contents, and the village of the Arikis is destryoed. Patiti, searching for Miro, finally discovers her in the cave in which they spent so many forbidden, happy hours, and in their marriage the two tribes are united forever in peace.

The Maoris are a handsome, clean cut, self-respecting people, happy, good humored and every one a natural born actor. They like to work before the camera, were easy to handle, always on the job and eager to please.

"The Devil's Pit" will be released in November.

It was seven months in the making.



Page six. *Top left—Elders of the Maori Tribe in front of their Council House. Top right—Maori girls in their famous "Canoe Dance." Center left—Maori warriors in "Challenge of the Spear"; right, Maori "War Ceremonial." Below—The stars of the picture.* Page seven. *Top left—First movement of girl's "Canoe Dance." Right—Maori "Ceremonial Dance," including men. Center left—Maori wood carver. (The men are very clever at wood carving and some of their houses are beautifully embellished with it.) Center right—Spearmen about to charge. Below—The camera crew—Will Cline, left; Lew Collins, director, center; Harold Smith, second, right.*

ATTENTION EX-SERVICE MEN

All ex-service men, members of Local 659, are requested to send without delay to this office their names and former assignments. Please attend to this without fail. THE EDITOR.

ASPHODELS

Elmer Fryer, still artist de luxe, at First National, is back from Phoenix, Arizona, where he went to attend the funeral of his grandfather. Our sympathy, Elmer.

OUR OCTOBER COVER

The beautiful picture which adorns the front cover of this October issue of **The International Photographer** is a product of the camera of our genial recording-secretary, Mr. Arthur Reeves. It was shot in the Canadian Rockies and is reproduced in this edition as a compliment to Local 665, of Toronto, and the S. M. P. E., who are holding their fall meeting for 1929 in Toronto, this October.

PACIFIC COAST S. M. P. E.

At the regular annual meeting, Tuesday, September 24, the Pacific Coast Section of the S. M. P. E. elected officers as follows: Peter Mole, chairman; Gerald F. Rackett, secretary and treasurer; Carroll Dunning, George Mitchell and Emory Hues, members of the executive committee. **The International Photographer** extends congratulations not only to the gentlemen honored, but also to the S. M. P. E.

S. M. P. E. TO TORONTO

(Continued from Page 4)

"Theatre Acoustics," by S. K. Wolfe, Electrical Research Products, Inc.
"The Optics of Motion Picture Projection," by Professor Arthur C. Hardy, Massachusetts Institute of Technology.
"A New Method of Blocking Out Splices in Sound Film," by J. I. Crabtree and C. E. Ives, Eastman Kodak Company.
"Photographic Characteristics of Sound Recording Film," by L. A. Jones and O. Sandvik, Eastman Kodak Company.
"Characteristics of Loud Speakers for Theatre Use," by D. G. Blattner, Bell Telephone Laboratories, Inc.

WEDNESDAY, OCTOBER 9TH

"Lubrication of Sound Film," by J. I. Crabtree, D. Hindman, C. E. Ives and O. Sandvik, Eastman Kodak Company.
"A Film Numbering Device for Cameras and Recorders," by M. W. Palmer, Paramount-Famous-Players-Lasky Corporation.
"Dimensional Analysis as an Aid to Miniature Cinematography," by G. F. Hutchins, General Electric Company.
"The Film Perforation and Means for Its Measurement," by W. H. Carson, Agfa Ansco Corporation.
"Camera Mechanism—Ancient and Modern," by Arthur S. Newman, London, England.
"Early History of Motion Picture Cameras for Film Wider Than 35 mm.," by Carl Louis Gregory.
"Possibilities and Problems of the Wider Film," by Lorenzo Del Riccio, Paramount-Famous-Lasky Corporation.
"Rectangle Proportions in Pictorial Composition," by L. A. Jones, Eastman Kodak Company.
"Wide Films and Standardization," by A. S. Howell and J. A. Dubray, Bell & Howell Company.
"The Wide Films From the Recording Standpoint," by C. A. Tuthill, Paramount-Famous-Lasky Corporation.
"Artistic Consideration in Sound Film Production," by Joe W. Coffman, Carpenter-Goldman Laboratories, Inc.

THURSDAY, OCTOBER 10TH

"A Rapid Method of Determining the Degree of Exhaustion of a Developer," by M. L. Dundon, G. H. Brown and J. G. Capstaff, Eastman Kodak Company.
"Burn Out Phenomenon of the Tungsten Filament," by Gorton T. Fonda, General Electric Company.
"Water Cooling of Incandescent Lamps," by Dr. Newell T. Gordon, General Electric Company.
"Radiation Characteristics of Two Mercury Arcs," by A. C. Downes, National Carbon Company.
"Some Properties of Chrome Alum Fixing Baths," by J. I. Crabtree and J. F. Ross, Eastman Kodak Company.
Open Forum.

Other papers are forthcoming, but titles and authors are not yet definitely ready for announcement.

ANALYSIS OF MEMBERSHIP

Somebody not long ago, a man who is supposed to know his way about in motion picture circles, asked the question: "Do the members of this Society of Motion Picture Engineers represent the industry, or is it merely a club with a high sounding name?" We were able to assure him that it did, very much, represent the best brains in the motion picture industry but had not at hand a classification of the membership to prove it to him.

President Porter was good enough to have the following data on the membership compiled and it is highly informative as to the personnel of the society:

Engineers, 129

Chief	40	Physicists	5
Research	22	Mechanical	5
Technical	14	Electrical	4
Consulting	11	Radio	3
Projection	8	Designing	2
Chemical	6	Film rceording	2
Installation	6		

Executives, 74

Presidents	25
Vice Presidents	18
Secretary and Treasurer	15
General Managers	16

Managers, 56

Managers	22	Technical	8
Production Managers	15	Laboratory Supts.	6
		Experimenters	5

Cinematographers, 45

Cameramen	25
Chief Cinematographers	20

Commercial, 34

Sales managers	13	Advertising managers	3
Editors	9	Patent attorneys	2
Sales representatives	6	Lawyers	1

(Concluded on Page 15)

A STUDY

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MOLE TO S. M. P. E.

Peter Mole, of Mole-Richardson, Inc., has gone to Toronto, Canada, to attend the fall convention of the S. M. P. E. for 1929, which opens on October 7.



PETER MOLE

After the convention, Mr. Mole will continue his trip through the east stopping at Rochester, New York City and neighborhood points, Schenectady, Cleveland, Chicago and other points.

Mr. Mole will need no introduction to the members of the S. M. P. E. as he has been an active member for several years and is a popular and welcome attendant at the conventions.

He is a native of Italy, but came to America in childhood and was educated in the United States, his alma mater being the Bryant & Stratton and Union Schools of Technology. He graduated in 1914 with the degree of electrical engineer and immediately was offered a place with the General Electric Co. where he remained until 1923 as designing engineer specializing in projection and in studio and searchlight lamps.

In 1923, Mr. Mole came to Hollywood and upon the strength of his former record had no trouble in finding a place in the motion picture studios which gave him the actual practical experience in production he had so long sought.

This led to his determination to engage in the manufacturing of lighting equipment for studios in order that he might put into practice ideas of his own and in March, 1923, together with Elmer Richardson, he organized Mole-Richardson, Inc., which in six years has by efficient management, square dealing and the exercise of unusual inventive genius placed itself in the front rank of its line.

Mole-Richardson, Inc., originated "Inkies," "Sun-Spots," "Rifle Lamps" and fifteen other units, all of which are in constant use in the studios, their output of incandescent lamp equipment being the largest in the motion picture industry.

This organization also makes arc lamps, motors, and other products, but the weight of their efforts is upon "Inkies," their registered trade-mark for the M-R type of incandescent lamps.

Mole-Richardson have but recently been forced to expand and their new factory at 941 North Sycamore avenue, Hollywood, California, leaves nothing to be desired as to capacity, convenience, comfort and efficiency.

———o———

Pinch Hitter

Carl Guthrie: "What kind of a girl is Trixie?"

Wilbert Wright: "Oh, she will do in a pinch."

Carl Guthrie: "Do what?"

CONVERTING 400 FOOT FILM MAGAZINES TO 1000 FOOT CAPACITY

Making possible the salvaging of hundreds of 400 foot magazines that are now in the discard, Ralph G. Fear, head of the Cinema Equipment Co., of Hollywood, announces a new system of converting these discarded "mags" into modern 1000 foot magazines.

"These converted magazines," says Captain Fear, "operate just as efficiently as new magazines. As a matter of fact, if you were not told, you would believe them to be brand new."

Either Bell & Howell or Mitchell magazines are converted at a very definite saving.

———o———

BACK HOME FOR DAN

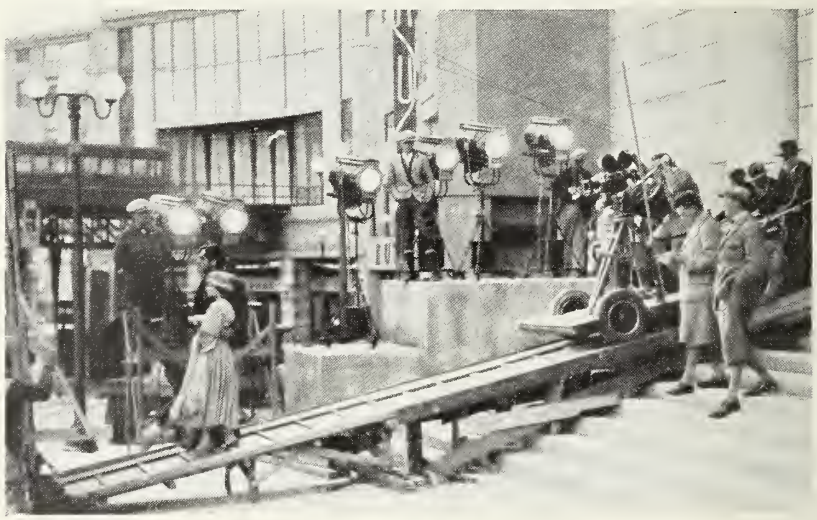
Daniel B. Clark, and his staff made up of Arthur E. Arling, second; Curtis Fetters, Akeley; Anthony Ugrin, stills; Ray Wise, Otto Jordan, Bud Mantino, assistants, are over on the Apache Trail making a 100 per cent sound Western for Fox. Erickson is directing, the featured players being George O'Brien and Sue Carroll. The vehicle is Zane Grey's story "The Lone Star Ranger," which has been done before but not in sound and dialogue. This is like getting back home to Dan as he hasn't shot a Western since Tom Mix quit. The caravan touched at Flagstaff, Tuba City, Rainbow Bridge and Monument Valley and will wind up in Prescott.

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National Panchromatic Carbons (soft light) produce a soft orange colored light rich in red, orange, and yellow-green rays, especially suitable for all panchromatic emulsions.



F. W. Murnau and Karl Struss directing a scene with Janet Gaynor and George O'Brien for "Sunrise," a Wm. Fox production. Brown Ashcraft High Intensity Spotlights boosting daylight

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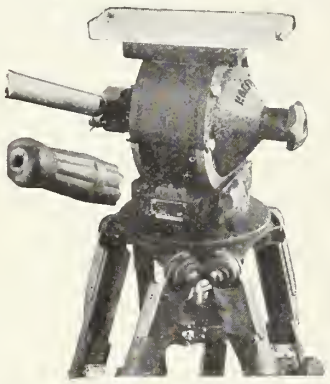
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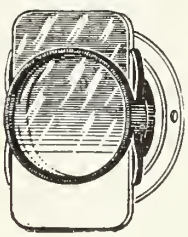


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* * *

Yep! HENRY GERRARD is still Technicoloring and doing a good job of it—he can make a rainbow look like a pawn-broker's window, and, as for lilies—I've never seen such gorgeous reds in my life.

* * *

HARRY FISCHBECK, GEORGE CLEMENS and FLEET SOUTHCOTT are working on a special production that will probably cause a lot of head-scratching on the part of the 659ers when their trickery is released.

* * *

VICTOR MILNER is making another masterpiece for Mr. Mendes, aided and abetted by such golfers as MELLOR, KNOTT, RAND, AHERN, ANDERSON and GRIGGS.

* * *

CHAS. LANG is again making Eastman famous with his renditions in light and shade—Richard Wolesse is directing and PYLE, PITTACK, BLACKSTONE, FAPP, BURGESS and MARTINELLI are hanging around, lending their moral support.

* * *

AL SIEGLER ("Rattle-your hocks" Siegler) has taken his place in the line-up of the P. F. L. immortals and is now picking angles for Eddie Sutherland. Siegler's interference consists of PIERCE, REYNOLDS, BORRADAILLE, LANE, HARLAN and MEYERS.

* * *

ARCHIE STOUT no sooner finished with Mr. Tuttle than came the care of his boat on the open sea, but Virg Miller cut loose his "spanker" and Archie dropped anchor on Stage 12 with Mr. Wellman. MAYER, METTY and LINDON as first mate, second mate and purser, resp. (not an abbreviation for "respectable") and the petty officers consist of WELLMAN, BROOKS and CLOTHIER. What ho! and a bottle of H 2 O!

* * *

VIRGIL MILLER is spending some of his overtime in preparing a first prize for the next Golf Tournament—a beautiful grass-covered treatise on "How to putt with a putter after you put the puttee on the putting green." This may be published by installments, should the requests force Si Snyder to depart from his established rule of twelve inches. These installments would contain such headings as: "Hole in One in One Lesson," "Learning to Putt with a Driver," "Utilizing Divots Agriculturally," "Niblicking Mashie Shots with a Blonde," "How to Use the Two Halves of a Ball After Teeing Off," etc.

* * *

AL GILKS and LEN ABBOTT are co-ordinating their efforts on "The Bandwagon" featuring Buddy Rogers and Jean Arthur. BENNETT, HALLENBERGER and TITUS are the poker players on the side and ADAMS, MORRIS and OVER pick up the chips.



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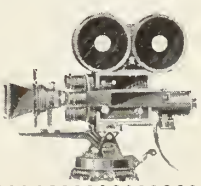
The expansion of its work in the development of cinemachinery has led to the establishment of the Bell & Howell Engineering Development Department as a self-contained unit, dedicated to the future success of the industry. To house this department a special laboratory has been constructed. Its equipment is the finest in the world, its staff includes the leading engineers in this field. Inquiries and assignments on any phase of design and manufacture of motion picture equipment are invited.

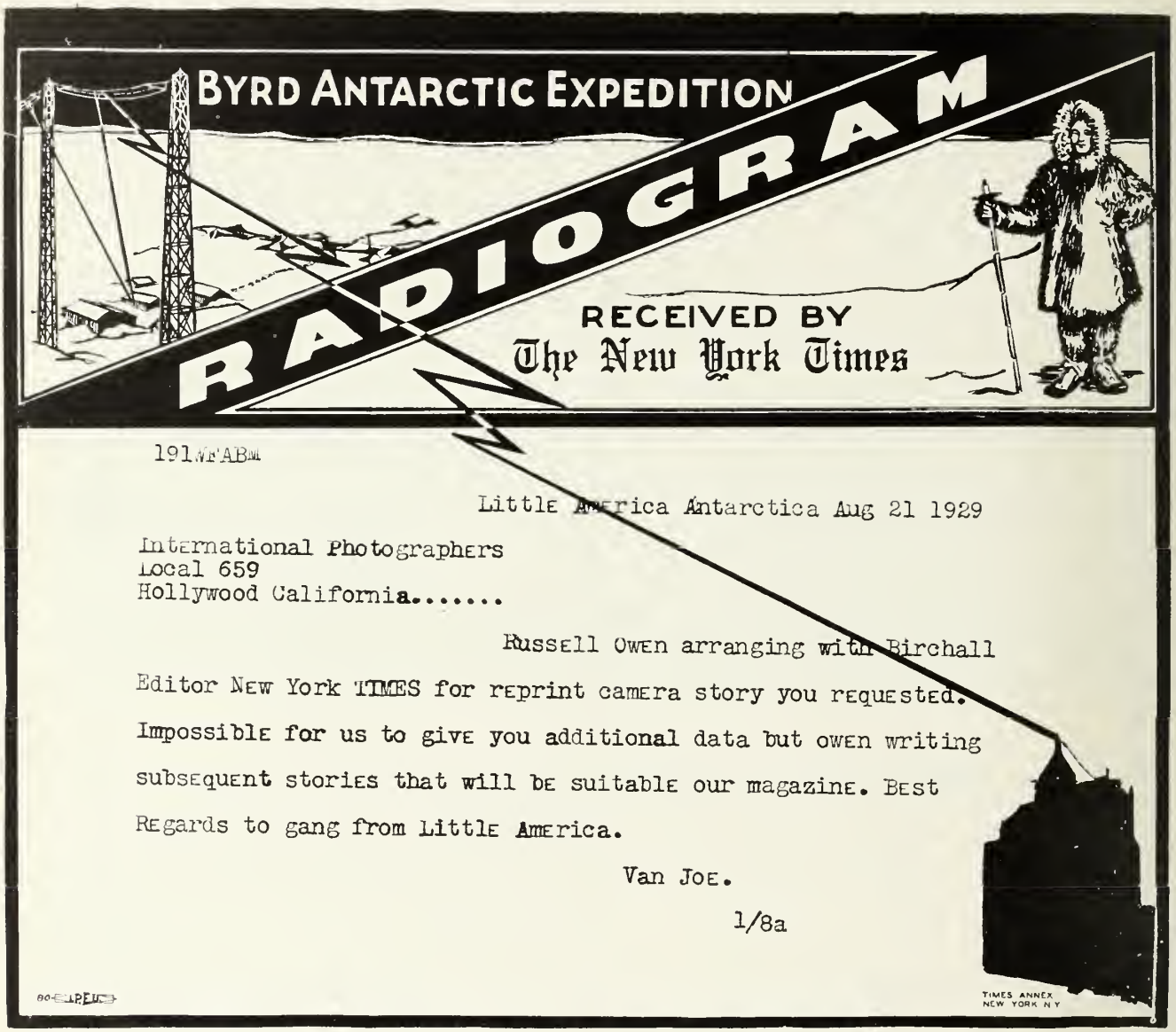
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WITH Commander Byrd, on the South Pole expedition, are two members of Local 659, the official cinematographers of the party, Joe Rucker and Willard Van Der Veer, both topnotchers in their line, of course, or they wouldn't be where they are.

Russell Owen is the official chronicler of the expedition and he is the clever chap who writes the stories that are radioed every few days from Byrd's Camp, Little America (Antarctica), to the *New York Times* and the *St. Louis Post-Dispatch* and syndicated through them to hundreds of the metropolitan newspapers of the United States, Canada and foreign lands.

Recently Mr. Owen interviewed Rucker and Van Der Veer on motion cameras, the effect of intense cold upon them and the care of such cameras under antarctic conditions. This interview, wrought into a story by Mr. Owen, was radioed to the *New York Times* syndicate and published in the subscribing papers, but it did not reach many of the men most interested in the subject, the cameramen of the motion picture industry.

It was then that the long arm of Local 659 got to work and the *New York Times* was asked if the camera story could be reproduced in **The International Photographer,** the official magazine of the Local. The report was that permission must be secured from Mr. Russell Owen —and Mr. Owen was only about 16,000 miles away.

Finally through Mr. F. C. Birchall, acting managing editor of the *New York Times,* arrangements were made by Brother Arthur Reeves to send a radio message to Rucker and Van Der Veer stating the case to them and asking them to request of Mr. Owen permission to reprint the story.

After a few days, sure enough, the radio barked back a reply from Rucker and Van Der Veer stating that Mr. Owen had very graciously consented and adding that other matter of interest to **International Photographer** readers would be coming up from time to time.

The editors are sure Mr. Owen's story will be found worth all the trouble it took to bring it to our readers and they extend to Brothers Rucker and Van Der Veer, to Mr. Owen, to Mr. Birchall and to *The New York Times* the sincerest assurances of appreciation of the entire membership of Local 659.

Above is a facsimile of the radiogram received from Joe and Willard.

By RUSSELL OWEN

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LITTLE AMERICA (Antarctica), June 15. (Exclusive)—The unnaturally warm weather of the last few days was followed yesterday by so much moisture that ice and frost crystals formed on every outdoor structure in the Byrd expedition's camp. Wires became glittering and fairy-like ropes in the light of a flare and even the radio towers and skiis standing in the snow were rimmed with delicate frost flowers.

Some of these things were so beautiful that they were photographed by flashlights and some wonderful pictures were made to show what pranks the frost giants can play down here when they are in an impish mood.

It was too good an opportunity for the moving picture men to overlook and

they brought out flares which lighted up the entire camp and the radio towers and antenna and made a record of these shining lines against the dark background of the Antarctic night.

Sun Returning

It was 11 degrees above zero yesterday when this phenomenon took place but today it is 8 degrees below again and clear, for which we are all thankful. It is good once more to see the stars and the faint northern twilight in the morning after many days of gloom and complete darkness.

New moving pictures are being made of other outdoor scenes and soon there will be flares shining down on the bay ice, as if witch fires were glowing there, throwing grotesque shadows among the uplifted cakes.

Joe Rucker and Willard Van Der Veer, the Paramount men, have had their troubles with their moving picture cameras for film snaps and cameras jam in periods of intense cold and frequently they have to come in and thaw themselves out before making another attempt to get a picture. But they are slowly obtaining a night record of life and scenes in the Antarctic.

One who attempts to operate a camera or theodolite or other instrument in the Antarctic must be prepared for many vexations. Moving parts bend due to contraction from the cold; moisture condenses between the lenses and fingers are burned until the tips appear to have been repeatedly seared by flames.

Cameras Freeze

The first breath of the Antarctic in the ice pack gave an intimation of what was coming. The moving picture cameras began to get stiff and were taken apart and washed out with gasoline.

As the ship got further south the photographers lugged their cameras below and with many imprecations disassembled them and refitted the moving parts. This binding was due to the unequal expansion of steel shafts working against brass bearings or some steel or brass part which came into contact with aluminum.

When there was room in the wardroom to work, the table top was frequently covered with parts of cameras while Rucker and Van Der Veer loosened bearings with crocus cloth, fitting and refitting, until the crank could be turned. Even the tripod had to be taken apart and refitted.

Whenever a camera was brought below it began to sweat and had to be carefully wiped and dried so that no moisture remained in it to freeze when it was again taken outside.

Here at the base cameras are baked in the oven or hung above the stove to dry when it was necessary to bring them indoors. If the slightest moisture is left in them they will freeze and bind in a few minutes.

The still cameras froze and had to be thawed. Frost gathered between the lenses no matter how careful one might be, and was only removed by baking. Some cameras have quit altogether because the shutters were not designed for low temperatures, but others have with care been persuaded to continue working satisfactorily, although frost will gather on the lenses of them all.

A little camera which may be carried in the pocket and kept warm until needed has proved to be the most valuable, both for withstanding cold and for ease of operation with blistered fingers.

The motion-picture film began to snap at 25 degrees below zero. It would break and have to be rethreaded, an operation done with bare hands because of the small space in which to work.

Fingers stuck to metal parts and after such a job Van Der Veer or Joe could be seen hopping about and holding their hands under their armpits in pain.

Care had to be taken not to breathe in the cameras during this operation, as the breath immediately formed frost all over the working parts. The thing that will make a cameraman madder than the proverbial hatter is to walk up to him while he is rethreading and say: "Isn't that interesting?" and breathe into his camera.

The condensation due to difference in temperature down here can hardly be imagined by one who has not experienced it. The warmth of the body coming in contact with something cold condenses moisture from the body. Even a book which has been lying near a cold wall will steam like a teakettle when it is opened in a slightly warmer atmosphere.

This gives a faint idea of the quality of condensation outdoors which at very low temperatures makes the breath crackle audibly as it leaves the mouth and turns into clouds of vapor.

Vapor Bothers

A man standing inside the entrance to one of the house tunnels forms so much vapor by breathing that the house appears to be on fire. And what one breath will do to a camera is best suggested by a row of asterisks.

The automatic camera quit at about 20 below zero because contraction from cold causes the springs to bind. It has been found, however, that an automatic may be warmed over a primus stove and if it is then carried under the parka next to the body except when in use it will work for about an hour. This is the way moving pictures were made in the Rockefeller Mountains.

One of the hardest things to overcome is the snow which collects on the lens during a blizzard. If the camera is turned away from the wind an eddy forms which sucks the snow into the lens and if it is held partly facing the wind the snow gathers even more rapidly.

It has to be removed frequently and with great care so as not to melt it and prevent frost forming. It cannot be blown out and there is difficulty in getting it out as the mere approach of the hand is sufficient to cause condensation and freezing. But some blizzard pictures have been made despite these difficulties.

Now that the cameras have been adjusted so that they will withstand the cold, they are left outdoors as much as possible to prevent sweating. But it was found difficult to keep the snow out when it was drifting.

Light Changes

This drift is incredibly fine. The cameras are made to keep out light and are nearly water tight, but after a blow or two, two or three spoonsful of snow would be found inside the cameras. Various types of hoods were tried until one was found which offered protection.

The dogs also took a liking to the tripods and the legs were chewed until they resemble old-fashioned hitching posts. The film is kept outside in one of the tunnels to guard it from quick changes of temperature and sweating.

The widely differing light conditions have been one of the greatest obstacles to good photography and only by constant tests have the proper shutter openings, speeds and filters been determined.

On January 1 at noon a three-times filter and stop twenty were used and the light had so changed by April 1 that in the same location it was necessary to use stop eight without filter to get equal quality in the negative.

Men Take Risks

The movie men have not made their pictures without some personal risk also as they have had to scramble around on soft ice, over pressure ridges and at times near crevasses. Van weighs more than 200 pounds and with a 100-pound camera and tripod on his shoulder he offers a lot of weight to be held up even by a big shoe.

When the bark City of New York was bucking the ice one day he went out ahead of it to get pictures and had to cross a soft spot. He sank in a foot at a time and walked like a cat on a wet pavement, but he got across all right.

Rucker fell into a crack where the ice dock alongside the barrier gave way and only the legs of his tripod across the crevasse saved him from going down. Luckily he had the tripod under his arm, but he had to wriggle hard to lift himself out.

The same difficulty in operation has been encountered in the use of the theodolites and scientific instruments operated by clockwork.

The theodolite lenses frost over and are baked out and the turn screws are covered with chamois to protect the fingers.

The clocks used in the magnetic recording instruments froze and were washed out with gasoline and then gradually cooled to prevent condensation. They are now operating well both in the magnetic observatory and the meteorologist instrument shelter, indeed the thermograph has withstood 58 degrees below zero without stopping.

S. M. P. E. TO TORONTO

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Manufacturers	5
Chairmen	2
Inventors	4
Professor of Photography	3

"The class of men composing our membership is changing," said the president. "We are acquiring an interest in radio and acoustics as applied to sound pictures."

That's a roster to be proud of and accounts, in no small degree, for the wonderful progress made in the technical side of the industry.

Radiomovies

BY

R. N. McCULLOUGH, *Supervisor of Projection and Electrical Equipment, West Coast Theatres*

How soon can we have direct vision of the world's activities. Will Radiomovies be the coming entertainment? We are able to hear speech and music, and sight can be carried just as well. Never has any invention had so much anticipating publicity, before its successful attainment, as Television.

Radiovision is based on one of the simplest mysteries of our childhood, when someone would draw parallel lines across a paper under which there was a penny, and an Indian would appear. This is the same process used in Radiovision—instead of using a pencil, the lines are drawn with a point of light, which sweeps across the picture in successive parallel lines. Each picture frame is covered every fifteenth of a second and the persistence of vision builds up the image directly on the eye.

At the present time, the fundamentals of all systems are the same. There are two methods employed—the disc scanner and the drum scanner. The disc receiver is the simpler mechanism. Both devices scan the picture in the same manner. They build up a picture line by line, from left to right with line distribution from top to bottom.

The Radiovision Moving Picture Frame is made up of forty-eight lines for quality detail, and fifteen picture frames per second to obtain smooth continuity. The disc receiver is made up of three parts—a neon lamp—scanning disc—and a motor to rotate it. The scanning disc is twelve inches in diameter. Thin material is used for the disc such as tin, brass, aluminum and cardboard (blacked).

The circle is divided into forty-eight equal spaces. However, forty-eight holes are not accepted as standard. The scanning holes are 1/32 inch in diameter. The first hole is 1/4 inch from edge of discs and spirals to 3/4 of an inch at the end of the spiral. The Neon Lamp is installed close behind the disc near the top. A 1/20 horse-power motor is used at the present time to drive the disc. The scanning disc speed is 900 revolutions per minute. Synchronism is attained by changing the speed of the scanning disc. Most installations have friction discs on the motor shafts, which bear against the scanning disc, and by moving the motor back and forward the speed of the scanning disc is increased or decreased.

The Radio output is connected to the Neon Lamp. The lamp requires about 300 volts. The glowing electrode (cathode) faces the disc. The picture appears by looking at the Neon Lamp through the flying holes of the scanning disc. If the picture is upside down, the scanning disc is reversed by reversing the motor, or changing the disc to other side. A radio receiver, which will bring in good phone reception is good for Radiovision. Further development will permit greater refinement as to the present Radiovision equipment.

Radiomovies will be the next new development in entertainment. They are practical now, but only on a very small scale. The future will bring us to the point where we will be able to see national sports and other great events exactly when they take place. The theatres will be equipped with a screen and receiving equipment. The receiving equipment will replace the present projection room equipment.

The present development of the short wave, high-frequency radio communication, is due to the American amateur. Will the American amateur develop Television and Radiovision to a satisfactory point of operation?

—o—

Brother Will E. Hudson, staff cameraman of Pathe News, with headquarters in Seattle, was a visitor at headquarters of Local 659, recently. Brother Hudson is one of the most interesting cameramen in the profession and has had a wide and varied experience. Especially is he informed as to Alaska and China and stories on these subjects by Mr. Hudson will appear in **The International Photographer.**

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"The Love Doctor"	Paramount	Eddie Cronjaeger
"The Wild Party"	Paramount	Victor Milner
"Darkened Rooms"	Paramount	Archie J. Stout
"Three Live Ghosts"	United Artists	Robert Planck
"Mr. Antonio"	Tiffany-Stahl	Ernie Miller
"Woman to Woman"	Tiffany-Stahl	Ben Kline
"The Awful Truth"	Pathe	David Abel
"Sailors Holiday"	Pathe	Arthur Miller
"Hunting the Hunters"	Educational	Dwight Warren and William Hyers
"The Golfers"	Sennett	John Boyle
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Technicolorings

BY

IRA HOKE

Warner Brothers' galaxy of color, "Show of Shows," has finally reached completion. During the long weeks of production the picture numbered among its Technicolor cameramen nearly every member of that organization. Barney McGill, supervisor of the picture, has the following Technicolor men on his list of photographers active in course of production: Chas. Schoenbaum, Howard Greene, Friend Baker, Chas. Boyle, Ray Rennahan, Milton Bridenbecker, Roy Musgrave, Ira Hoke, Earl Stafford, Henry Kruze, Earle Walker, Robert Tobey, Carl Guthrie, Maurice Kains, Robert Tobey and John McBurnie.

* * *

Metro-Goldwyn-Mayers' gigantic color, talking feature, "Rogue's Song," is now well into production under the guiding hand of Percy Hilburn, Charles Schoenbaum and Friend Baker who, assisted by Warren Lynch and John McBurnie, constitute the Technicolor staff.

* * *

After more than two months in the making, the Paramount Famous Lasky all color, all sound, super-special "Vagabond King" has finally reached the cutting room in its entirety. Henry Gerrard, chief cameraman, is assisted by Harry Merland, Wilbert Wright and Clifford Shirpser. The Technicolor staff consists of Ray Rennahan, supervisor, assisted by Roy Musgrave, Ira Hoke and Carl Guthrie.

* * *

Charles Bohny, formerly of the Mack Sennett photographic staff, has joined the Technicolor camera department.

* * *

Peverell Marley is supervising "Cotton and Silk," the new all color, all sound picture being produced by M-G-M. Technicolor has placed one of their crack crews on this production. The color men are as follows: Charles Schoenbaum, supervising; Friend Baker, in charge of camera mechanisms; Earl Stafford, Warren Lynch and John McBurnie.

* * *

TECHNICOLOR SHOP EFFICIENT

The boys on the Technicolor staff are justly proud of the wonderfully organized camera department which has been created and is maintained largely through the efforts of Ed. T. Estabrook, chief cameraman for the Technicolor Corporation.

Estabrook, himself a cameraman for many years with Technicolor, has worked out a series of departments which his field experience has proved most efficient for the proper maintainance of the delicate mechanisms of Technicolor cameras.

The main camera assembly shop, where all equipment is maintained and stored, is equipped with separate work-bench space for every cameraman on the staff, with ample locker room for personal tools and equipment.

Gerald MacKenzie, in charge of the optical and prism laboratory, has just received from the manufacturers four complete portable testing benches. These testing devices will henceforth accompany every unit on distant locations where daily service from the Hollywood plant is impossible. Mackenzie, and his assistant, Joe Lane, will instruct all Technicolor cameramen in the proper maintenance of their prism mechanisms while on location, in order that the high standards of efficiency necessary in Technicolor equipment, may be maintained under adverse conditions often encountered while away from the plant.

Probably the most appreciated department in the series of Chief Cameraman Estabrook's maintenance units is the efficient little developing and drying laboratory, where tests shot on Technicolor cameras may be developed and dried within a very few minutes after being made. Earl Wilson, veteran Technicolor laboratory expert, is in charge of this test laboratory.

General maintenance of Technicolor's score or more of cameras is carried on by a special staff of trained artisans who carefully test and calibrate every moving part of the color boxes periodically. This maintenance crew is directly under the supervision of Ed. T. Estabrook, and its personnel is as follows: Gifford Chamberlain, Curtis Cady, Fred Grant and Henry Prautsch, Jr.

* * *

Because of the extreme accuracy necessary for the proper registration of Technicolor film, a complete precision machine shop is maintained in connection with the main camera department. This machine shop, which is equipped with the finest machinery obtainable, is in charge of Henry Prautsch, chief machinist for the Technicolor Corporation. In this shop Mr. Prautsch and his staff of six precision machinists replace worn mechanisms, make lens mounts, clutches, and the thousand-and-one things that are found necessary during the course of motion picture production.

* * *

BOYLE JOINS TECHNICOLOR

Charles P. Boyle, well known for his many successful Paramount pictures, among which were "Behind the Front," and "We're in the Navy Now," has joined the Technicolor staff of notable first cameramen.

* * *

Frank Good, who just finished supervision for the Technicolor Corporation on Warner's production "Golden Dawn," has shifted his entire staff to Roy Del Ruth's new directorial masterpiece in color "Hold Everything."

"Hold Everything" features Georges Carpentier, the famous boxer, and Frank expects several weeks' intensive training on the part of all members of his crew before the picture is finished.

J. Dev Jennings is co-supervising with Frank Good. Their staff consists of Lee Davis, in charge of camera mechanisms, Milton Bridenbecker and Chas. Geisler.

* *

DYAR CHIEF OF STILL DEPARTMENT

Otto Dyar, who for the past year has been photographing for the Publicity Department of the Paramount West Coast studios, has been promoted to chief of the Production Still Department.

Otto joined the Paramount still staff over four years ago, and won recognition through his remarkable still photographs on the "Vanishing American" and "Wings."

Many of the Clara Bow and Bebe Daniels pictures made during the last several years have gained fame on the twelve-sheets through the medium of Brother Dyar's camera.

Dyar has a background of more than ten years in the photographic field of the motion picture industry. During this time he has operated movie cameras as well as 8 x 10s.

* * *

AT FIRST NATIONAL

Elmer Fryer photographed the opening of the Warner Bros. Theatre at Fresno.

Faxon Deane's smile has come to be an institution on this lot.

Earl Crowley is all cheered up. Mrs. Crowley has returned from a visit with friends in the east.

Bill Fraker has gone to join Director Henry King. We miss this genial old timer.

"In the Next Room" is a mystery play, under direction of Eddie Cline, featuring Jack Mulhall and Alice Day. The 659 boys on the job are John Seitz, chief cameraman; Bob Wagner, Billy Schurr and Dick Towers, cameramen; assistants, Irving Glassburg, Palmer Belmont, Jack Anderson, Jack Warren; Les Rowley, stills.

Elmer Dyer, that clever aerial photographer, pictorialist and trick still artist, has gone up to the vicinity of San Francisco for a few weeks.

THE STORK

Born: To Mr. and Mrs. Geo. T. Trafton, on Sunday, September 15, 1929, a son, weight nine and one-half pounds. Local 659 and **The International Photographer** extend heartiest congratulations to the parents and welcome the youngster with open arms to this mundane sphere.

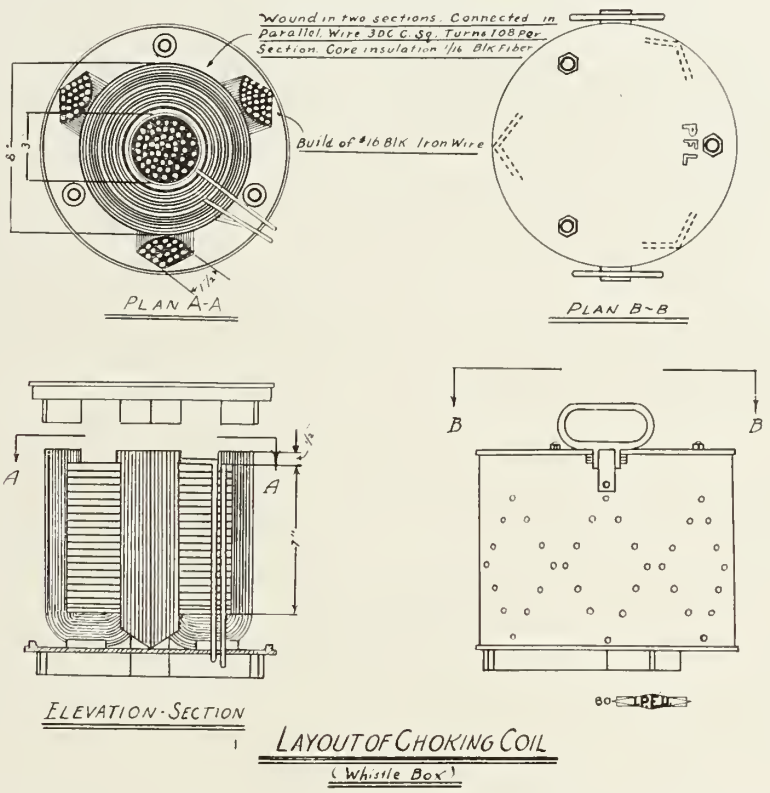
Whistle Boxes

BY

EARL MILLER, *Chief Electrician Paramount-Famous-Lasky*

Quieting Arcs for Studio Sound Lighting

A "Whistle Box" is so-called because it doesn't whistle. On the other hand it takes the "whistle" out of the arc lamp. It came in with the sound picture and is a clever device to silence the carbon light.



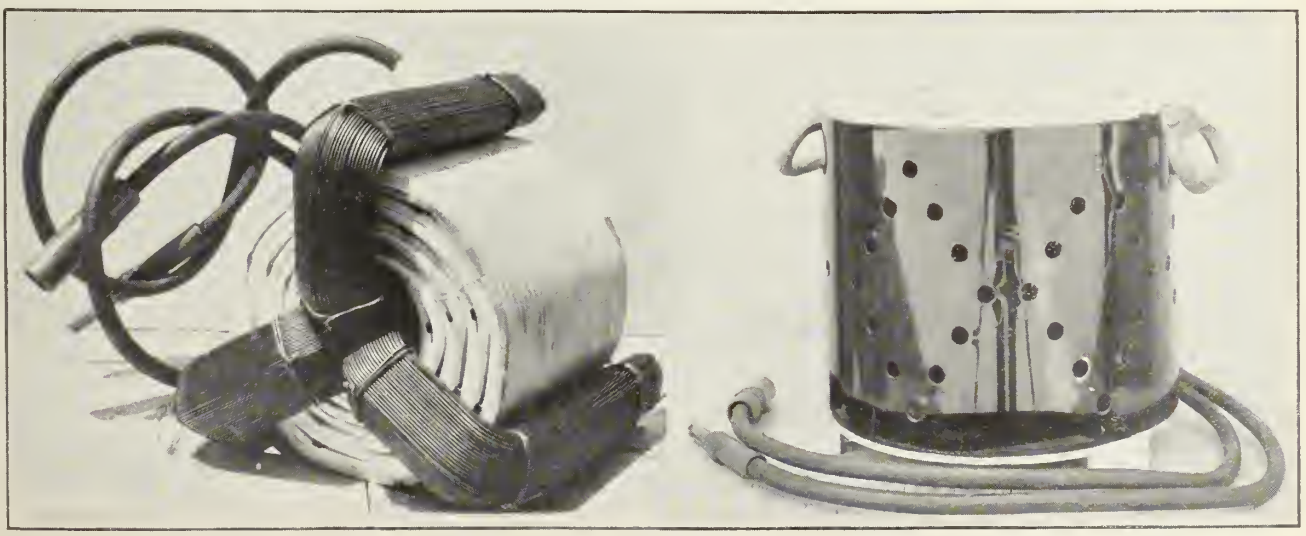
Earl Miller, whose "by line" adorns this page, is one of the cleverest electrical engineers in the motion picture industry. Henceforth, his name will appear more frequently in this publication.

Sound brought to the electrical department may problems in rebuilding and readjusting equipment to make it run in perfect silence. We were faced with the possibility of being forced to scrap several hundred thousands of dollars worth of serviceable and very necessary arc lighting equipment.

We started by trying to change to fibre gears in the high intensity lamps but discovered that by the simple expedient of putting on a cutout switch that would stop the feeding motors we could stop all mechanical sounds during actual shooting and still maintain uniform light.

Commutator ripple offered a problem that was not so easily overcome. Several different methods of building balanced filter circuits were tried but the iron cored choke coil offered the most practical means of quickly solving the problem. It seemed at first that the extra weight would make it expensive to handle but the accompanying photographs show that it is now made very compact. They can be stacked at the switchboard and thereby eliminate the necessity of moving them with the individual lamps.

We are now working on a set covering an entire stage. It is being photographed in all color and is all sound and all arc lighting. We are using 58 Sun Arcs, 90 Scoops and 25 Rotary Spotlights.



The Electrical Recording and Reproduction of Sound-Part 1

BY

ROBERT L. KAHN

An authoritative survey of the totality of the art on Electrical Sound Recording and Reproductive Inventions as set forth by Mr. Robert L. Kahn, until recently examiner in these departments of the U. S. Patent Office, and as published in the Journal of the Patent Office Society, Washington, D. C. Reproduced by special permission of the Journal of the Patent Office Society, Sept., 1929.—Editor's Note.

Within the last few years, the commercial methods of recording and reproducing sound have undergone some very profound changes. But like everything else, these commercial changes should not be considered as exactly mirroring simultaneously occurring changes in the theory and fundamentals of the art. It is just like the sea battering against a wall, apparently making but little change when suddenly at some stage the whole structure will go toppling. Almost as early as Edison had invented the phonograph, inventors bent their energies toward developing an electrical system for doing everything. But their minds outran their facilities. For one thing, electrical apparatus in the early part of the present century was crude, as measured by our modern requirements for accuracy, reliability, and sensitivity. An amplifier of electrical energy, like the present vacuum tube was unknown. Acoustical devices like transmitters, receivers, sound recorders and reproducers for wax records were not highly developed. The paramount object in those days was to get a good output of energy from the devices. Fidelity of translation had to take a secondary part. Now these binding and circumscribing restrictions have been displaced. The main object is fidelity of translation. Modern radio has educated the public to an appreciation of faithful translation of sound waves into electrical currents and back again to sound waves. The thing could be done well and had to be. The old methods of recording and reproducing sound were not equal to the demands placed on them. Like the noiseless and silent servants we read about in novels, electricity came in and demonstrated the faithfulness, flexibility, and ease with which these desired results could be obtained.

The difficulties of mechanical recording on wax are well known. First of all, if an orchestra is to be taken, the grouping has to be very carefully arranged with respect to the horn. Irrespective of the actual volume, certain instruments would not record very well and would be submerged by others. There was a limit to the number of pieces. As a rule, a large symphony orchestra would be pared down to a fraction of their number, often as low as a third. Then they had to distort their rendition of the music. There was a limit to the loudness, for too much volume would record as blasting and might make the grooves so wide that adjacent ones would run in together, since the pitch of the spiral is a constant. Too soft playing would not record at all. Thus that form of distortion which tended toward monotony was a large defect. The methods of electrical recording have not entirely removed this but the range of volume has been greatly extended. The greatest source of evil, however, was the distortion of the various frequencies present in the sound to be recorded and reproduced.

Distortion Due to Mechanical Resonance

To properly appreciate this type of distortion and understand how it has been overcome, it will be necessary to go into the mechanics of a vibrating body in a very cursory manner. Everybody undoubtedly knows that every mechanical element in any sort of a system has a tendency to vibrate at a certain frequency. The mass and elasticity of the body are the determining factors. This body may be able to vibrate at a different frequency if it is forced to do so, but the resonant frequency is the one it will choose if it can. This phenomenon may be considered from a different point of view. The resonant frequency may be considered as that one at which a device will be vibrated most efficiently. Let us assume a string has a resonant frequency of 1000 vibrations per second. Assume that the energy required to set the string into vibration at that frequency is unity. Then apply energy at a different frequency, say 1300 vibrations per second, and try to force the string to vibrate. It will be found that to get the same ampltitude of vibration may take as much as five or ten times the energy as at resonance. If a curve is plotted with frequency as one coordinate and energy as the other, it will be found that at the resonance period, the curve assumes a shape almost like a mound coming up from the ground. Thus it will be seen that the efficiency with which applied energy is transformed into vibratory energy varies tremendously near the resonant frequency. Now the distortion inherent in mechanical recording and reproduction under ordinary conditions may be understood. As the sound enters the horn, it encounters a device that has its own resonant frequency and this device picks out that frequency and transmits it very efficiently to the rest of the system, the remaining frequencies being transmitted at a much less efficiency. This means that most of the sound entering is reduced in volume because of the losses and that one frequency, the resonant one, is very little reduced in volume. The distortion due to that can be readily imagined. The sound then continues to the diaphragm. This has a resonant frequency and as a rule, it is much more marked than the horn. The curve for a diaphragm at the resonant frequency is much sharper than for an ordinary horn. The same thing happens here that happened when the sound was being transmitted through the horn. What complicates matters, is that the resonant frequencies of the horn and diaphragm are not often the same or near each other. That means that the sound is much more distorted and losses are greater. If the two elements of the system had identical resonant frequencies, it would not be so bad. It would be like two windows in line with a source of light. The second window would not cut off any more light than the first one had done. But if the second element has a different resonant frequency, then it is like moving the second window sideways. The first window has cut off a certain amount of light and the second one cuts off more. Then the transmission of the energy from the diaphragm to the recording stylus is like a third window. This element has its own resonant frequency. Now considering the system of windows as an example, there is going to be one band that goes through all the windows quite well, the rest of the light being cut off and diffusing through. By band here is meant a rectangle of light and refers to the area of illumination. In the same way, the entire recording system picks out one frequency which all the elements will transmit with considerable efficiency and records that very efficiently—that is with little diminution of volume. The remaining frequencies are transmitted with very great losses and are recorded with comparative weakness. This is only one-half of the process. The very same thing happens in reproduction. The net result is that one frequency is over-emphasized and the rest are recorded, if there is considerable energy in that band, otherwise they are lost. The ordinary record of some years ago was reproduced most efficiently at about 800 cycles per second. That takes the entire recording and reproducing into account. The remaining frequencies fared very badly. The high frequencies of several thousand cycles per second, the ones that lend naturalness to a tone and which distinguish a piano tone from a violin tone of the same pitch, were for the most part lost. That accounts for the difficulty which every one has experienced in attempting to determine what instrument was being reproduced.

These grave imperfections in mechanical processes were well understood but little could be done. One well known method of avoiding distortion due to resonance is to make the resonant period outside of the range of frequencies in which it is desired to obtain a uniform efficiency of translation. Thus in voice frequencies, the range is usually from zero or two hundred up to two, five or ten thousand. That is the audible range and the greater the limits are taken as above stated, the more faithful will the translation be. The greatest amount of actual energy lies below the two thousand cycle mark, so everything above that is in the nature of a refinement. By making

(Continued on Page 43)

Golf Tournament 1929



THE biggest, most enjoyable, and perhaps most useful event in the history of cinematography in Hollywood was the First Annual Golf Tournament of Local 659, I. A. T. S. E. and M. P. M. O., International Photographers of the Motion Picture Industries, held on the links of the Westwood Country Club, on Sunday, September 8, 1929.

There were twenty (20) foursomes in the contest, but a total attendance of about three hundred (300) members who came and went during the day, according to the time they had to spare for sport.

Most of the boys were at work in the studios and many were on location, but those in attendance enjoyed the most hippecunooverous social affair that ever happened among cameramen, bar none.

It was largely to the credit of Represensative Howard Hurd's office assistant, Jimmy Palmer, that the tournament scored such an unqualified success. Brother Palmer was indefatigable from the inception of the big idea to the end of the perfect day which was topped by a wonderful barbecue banquet served at the Uplifters' ranch with J. E. Brulatour, Inc., represented by Edward O. Blackburn, as host.

Everybody was delighted; everybody had an immense time and the only regret was that the Tournament could be held only once a year.

The committee assisting Mr. Palmer, which is the standing Golf Committee of the Local, is composed of Reggie Lanning, Ira Morgan, William Foxall, Johnny Mescal and William Snyder, and already are they making arrangements for 1930 when they expect three to five times the entries as listed in this first event.

Play began at 8 o'clock sharp with Wesley Smith and Edward O. Blackburn, respectively West Coast Representatives of Dupont-Pathe and Eastman raw stock, teeing off on their challenge contest to determine which should have the honor of being host to the players in the Tournament. Mr. Smith won and the barbecue was served as stated, at the Uplifters' Ranch.

President Alvin Wyckoff, of Local 659, began the proceedings by teeing off to a fine drive, but refused to continue because of his engagement to referee the match between Smith and Blackburn.

The foursomes followed each other rapidly to the tee and some of the boys who had never played before came in with cards that were amazingly low considering the course. Everything was as orderly as a professional contest and by 3:30 the last foursome came rambling home.

The high cards were 81, tied by Hap Depew and Roy Johnson who, in the play-off over the same course Sunday, September 15, scored respectively 81 and 77, Brother Johnson's name going on the Dupont trophy as the champion for 1929, Brother Depew taking the prize for second gross—a beautiful solid silver cocktail cup donated by W. J. German of J. E. Brulatour, Inc.

The prizes were awarded on the links by President Wyckoff, and it was a happy bunch that cheered the winners.

For ten days before the tournament the trophy and other prizes were placed on exhibition in the show windows of the Schwab Clothing Company, 6358 Hollywood boulevard, and to whom the officers and members of Local 659 are deeply grateful for the courtesy.

The spirit of "get together" engendered by this tournament will prove of immense benefit to the membership of Local 659, and its salutary effect will be cumulative as the years pass by.

But golf is not to be the only vehicle to help in this good work of the development of camaraderie. Already the committees are at work on arrangements for a mammoth minstrel performance, for a grand barn dance, for a pictorial exhibit, for the organization of a baseball team, a football team, a chess tournament, a day of field sports, etc.

Verily Local 659 is on its way to a glorious, prosperous and happy future.

The list of prizes, donors and prize winners follows:

THE PRIZE WINNERS

1st Gross: Dupont Perpetual Trophy and Statuette—Smith & Aller, donors—won by Roy Johnson.

2nd Gross: Silver Cocktail Cup—donor, W. J. German, J. E. Brulatour, Inc.—won by Hap Depew.

1st Net: Roy Davidge Cup—donor, Roy Davidge Laboratories—won by Bill Snyder.

2nd Net: Set of golf clubs—donor, J. E. Brulatour—won by Gordon Jennings.

3rd Net: Dupont Silver Vase—donor, Dupont—won by W. P. McPherson.

4th Net: Graflex Camera — donor, Emory Hues, Eastman Co.—won by Ray Ries.

5th Net: Suit—donors, Bud Courcier and Geo. Gibson, Eastman Co.—won by Bill Foxall.

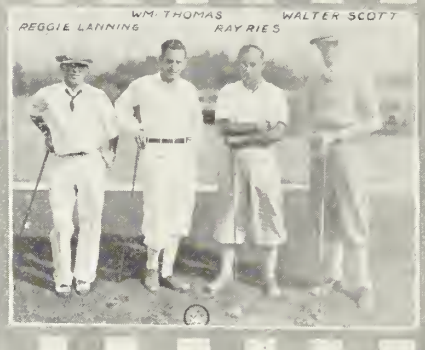
6th Net: Book Flask—donor, Agfa—won by Tony Gaudio.

(Continued on Page 24)

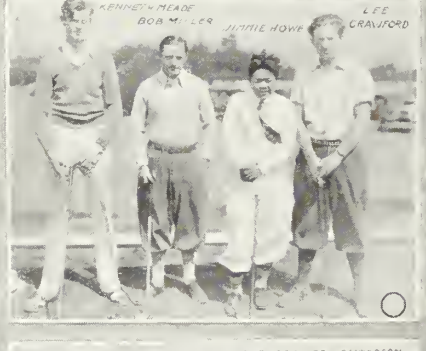


Group shot of the contestants and Officials of the Tournament.



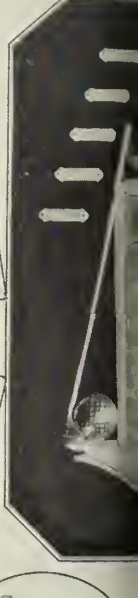










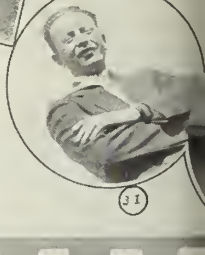


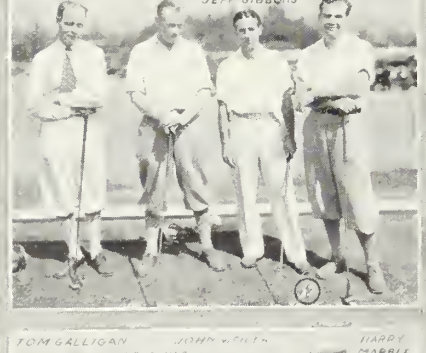




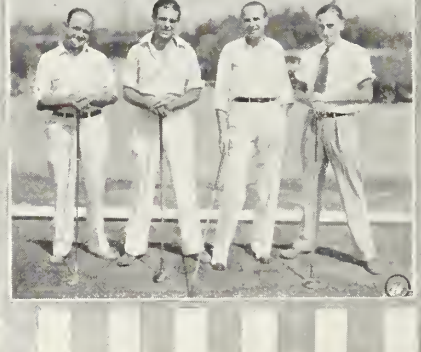














21—President Wyckoff opens the tournament. 22—E. O. Blackburn tees off. 23—Glen
Gibson shows 'em how. 27—Hard luck. 28—Howard Hurd holes in. 29—Our dentist
Lincoln, our mascot. 33—Jimmy Palmer, the boy who made th



polo ball. 24—Jack Rose takes it seriously . 25—Lew Physioc has style. 26—George 30—J. Edwin New in action. 31—Simeon Aller at the 19th hole. 32—Mrs. Louise e. The border, our Foursomes. In the center, the Trophy.



Some of the Prize Winners: 1—Tony Gaudio. 2—Karl Struss. 3—Ira Morgan. 4—Gordon Jennings. 5—Jack MacKenzie. 6—Jimmy Clancy. 7—Sherman Clark.

7th Net: Lens 2-inch astro—donor, Mitchell Camera Co.—won by Jack Breamer.

8th Net: Schwab order $50.00—donors, Smith & Aller—won by Dick Towers.

9th Net: Overcoat order—donor, Ben Goetz, Consolidated Laboratories—won by Art Smith.

10th Net: Binoculars—donor, Mr. Babb, Eastman Kodak Stores—won by Jimmy Manatt.

11th Net: Barometer and Clock—donor, Pete Shamray, Smith & Aller—won by Reggie Lanning.

12th Net: Kodak—donors, Ries Brothers—won by Jimmie Clancy.

13th Net: Bathrobe order—donor, King Charney, Agfa Co.—won by Frank Redman.

14th Net: Pajama Suit—donor, King Charney, Agfa—won by Sherman Clarke.

15th Net: Sweater order — donor, Schwabs Clothing Co.—won by Ira Morgan.

16th Net: Sweater order—donor, King Charney, Agfa—won by Karl Struss.

17th Net: Silver King Golf Balls—donor, Organization—won by Kenneth Green.

18th Net: Gold Birch Golf Balls—donor, Organization—won by Jack MacKenzie.

Consolation Prize: I. A. T. S. E. emblem ring—donor, International Photographer—won by Harry Jackson.

Booby Prize: Book on "How to Play Golf"—donor, Local 659—awarded to Clifton King.

Flight Prizes: 1—William Foxall, Art Smith; 2—Ray Ries, Reggie Lanning; 3—Hap Depew, Bill Snyder; 4—Jimmie Manatt, John Boyle; 5—Ira Morgan, Kenneth Green; 6—Jack Breamer, Ernest Laszlo; 7—John Miehle, Guy Wilky; 8—Hal Marzorati, Howard Hurd; 9—Eddie Cronenweth, Bill Grimes; 10—Tony Gaudio, Eddie Cohen; 11—W. P. McPherson, Guy Bennett; 12—Ben Kline, Lew Physioc; 13—Jimmie Clancey, Jack MacKenzie; 14—Frank Redman, John Hickson; 15—Lloyd Ward, Harry Marble; 16—Roy Johnson, Karl Struss; 17—Sherman Clark, Clarence Bull; 18—Joe Walters, John Shackleford; 19—Jimmie Howe, Kyne Meade; 20—Dick Towers, Cliff Thomas.

The Flight Prizes were cigar lighters to the top men, silver cups to the runners-up.

The big feature of the International Photographers' Golf Tournament was

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HOllywood 1944



More Prize Winners: 1—Jack Breamer. 2—Jimmy Manatt. 3—Ray Ries. 4—Hap Depew and Roy Johnson. 5—Dr. P. McPherson. 6—Reggie Lanning. 7—William Snyder. (Bill Foxall, Dick Towers, Art Smith, Frank Redman, Ken Green, J. McKenzie failed to get before the camera.)

the challenge match between Edward O. Brulator Eastman Blackburn and Wesley Dupont-Pathe de Nemours Smith. For the benefit of our readers who do not know these gentlemen it must be revealed that they are respectively Hollywood distributors of Eastman and Dupont raw motion picture film and they are mighty important men in the industry, their firm names being J. E. Brulatour, Inc., and Smith & Aller.

The challenging was done by Blackburn who threw down the gauntlet to Smith and also to King Charney, genial local distributor of Agfa raw stock, but King was ill and the big war was fought between Blackburn and Smith. The stakes were the price of a big barbecue feed to the hordes of hungry cameramen after the tournament, which racket, as everyone knows was pulled off on the links of Westwood Country Club.

(In the absence of our sport editor the report of the Blackburn-Smith ruckus was written by Kameravitch Tripodoffsky, our Russian technical correspondent, whose English is all right, but who has some difficulty keeping his golf separate from other American sports.—Editor's Note.)

Let Mr. Tripodoffsky tell it:

They (meaning Blackburn and Smith) went to bat at 8 o'clock with President Alvin Wyckoff, of the Local 659, as referee to keep the peace, keep score, render first aid and caddy. Blackburn knocked the first ball pitched into the left field bleachers for a three base hit, but Wyckoff ruled that it was a foul and Smith won the first hole four up and (17) to play. It looked like Wyckoff was getting even for something, but the incident passed and it was a love set at the third hole with Blackburn laying down a stymie that Smith tried to get over with his lofter, but could do no better than to catapult a divot into the referee's eye which seemed to please Blackburn immensely.

In the fourth chukker Smith caught an in shoot on the end of his mid-iron and the ball was downed on the 40-yard line. Referee Wyckoff penalized Smith three strokes for being off side and the game proceeded with Wyckoff warning the contestants against hitting in the clinches.

In the sixth inning the score was Blackburn 32—Smith 31 and 5/8, a tough game, but in the back-stretch they were both running easily and Referee Wyckoff felt that he could safely take a nap during the forty-five minutes they were holing in on the 11th green.

Smith kicked goal and the score was bogey 8 in Smith's favor as they took the field for the seventh inning. With a count of three balls and two strikes on him Blackburn put over a fast one which struck the crown-block of Oil Derrick No. 3, ricochetted to the new high school, bounced back to the tee, hit Glen Kershner on the left occipital and fell plunk in the cup for a hole in one.

It was a regular humdinger of a shotski and Blackburn was entitled to a home

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run, but Referee Wyckoff woke up in time to call it a fumble and gave Smith the ball on the 28-yard line remarking as he did so that Blackburn put too much latitude on the ball.

(This was what the vulgar Hollywood studio habitue would characterize as a dirty crack, referring, slightingly, as it did to Eastman film.—Editor's Note.)



The Golf Committee. Left to right—William Snyder, Reggie Lanning, Ira Morgan, Bill Foxall, Jimmy Palmer.

Smith threw a forward pass in the general direction of the 13th hole, but the ball went out of bounds and Smith was out sliding to third. By this time the excitement was terrific and Referee Wyckoff spread out his first aid kit and prepared to call the ambulance. Blackburn wanted to tee off from the top of Oil Derrick No. 28 alleging that the selectivity was greater from there, but Referee Wyckoff ruled that this would be allowing too much latitude so Blackburn drew three cards and called him.

It was decided to move over on green 14 as the ground was more even there and everything went alright 'till Smith passed 14 times in succession. Here Blackburn remarked to George Gibson (who just happened along) that Dupont raw stock, of late, had shown a decided tendency to be grainy. Smith in an aside to Simeon Aller (who just happened along) said that he had heard 16 cameramen say that, of late Eastman didn't have any color correction nor any dependable degree of variable density.

The referee ruled that they were both off side and warned them against hitting blow the belt so the game proceeded with the ball in Smith's possession on his 16th tee. Smith kicked off to a beautiful start and Blackburn followed immediately with a two bagger to deep right while Smith made the green in 8 after throwing a forward pass into a sand trap. He couldn't find the ball owing to the extreme low visibility caused by Tony Gaudio's remarks as he was trying to get out of a water hazard four miles away.

They halved the hole and it was love forty as they started for the 17th green. But here an important looking hombre came up and said:

"Say, who are you guys, anyway?"

"Who wants to know," said Wyckoff.

"I do."

"Well?"

"Well!"

"What the —!!!"

"Are you guys members of the Los Angeles Country Club?"

"No, we're members of Local 659, I. A. T. S. E. and M. P. M. O."

"Then whatya doin' over here on the Los Angeles Country Club links!"

"Whatdya mean Los Angeles Country Club? These are the links of the Westwood Country Club."

"Don't kid me. The Westwood links are a mile and a half from here."

"Look 'er that," and he pointed to the Los Angeles Country Club clubhouse a few yards away.

"Well, how the"—(chorus).

The referee ruled that the contest was a tie at the 19th hole and that the game would be renewed from there so the party caught a bus back to the Westwood links and started on the homeward flight.

They halved the 20th, but Smith won the 21st with a base on balls, a steal, a fielder's choice and a kick from placement.

Blackburn set up at the 22nd tee using a Keno-Plasmat F. 1.5 and Eastman Panchromatic (Type 1) in an attempt to stem the tide, but he couldn't keep Smith from scoring on a tackle-buck and field goal.

(Blackburn said if he'd had Type No. 2 he'd have won hands down.—Editor's Note.)

Smith called for a shot to the corner pocket, but the ball careened off the wrist watch of Gene Smith and rolled into the rough where it disturbed the meditations of Lew Physioc who had sat down to explain the difference between variable density and variable area to Speed Hall.

At the 31st hole it was 3 up and two to play with Blackburn trailing due to the high speed and static. At this point Roy Klaffki discovered that the balls in use had no Union Label and the contest was declared null and void, so Referee Wyckoff decreed that the game should be settled by a debate on the question:

Resolved, That the best raw stock in the world for all purposes is {Eastman / Dupont

Each side was to be given eight hours to present its case, but as both declared the time too short, and, as no other time could be agreed upon, it was decided to settle the match by a pie-eating contest which was won by Smith.

Blackburn, therefore, had to pay for the dinner and things and at 4:30 everybody went to the Uplifters' Club where everybody uplifted the finest, biggest barbecue feed that cameramen ever sat down to. It was simply panchromatic and no mistake.

Here ends Mr. Tripodoffsky's story of the big contest between Mr. Blackburn and Mr. Smith, but there is still something to tell and which is strictly confidential and between us cameramen. It seems that Business Representative Howard Hurd had lain down on a rustic bench in a bosky bower at the Uplifters' to rest a minute, or maybe two, from his strenuous labors of the day, when he was suddenly aroused by voices back of the screen of wild cucumber vines which concealed him. The voices seemed familiar. He could not help but hear. Here is the conversation:

"Well, Wes, how did we come out?"

"Just got it figured out, E. O. Here is the dope."

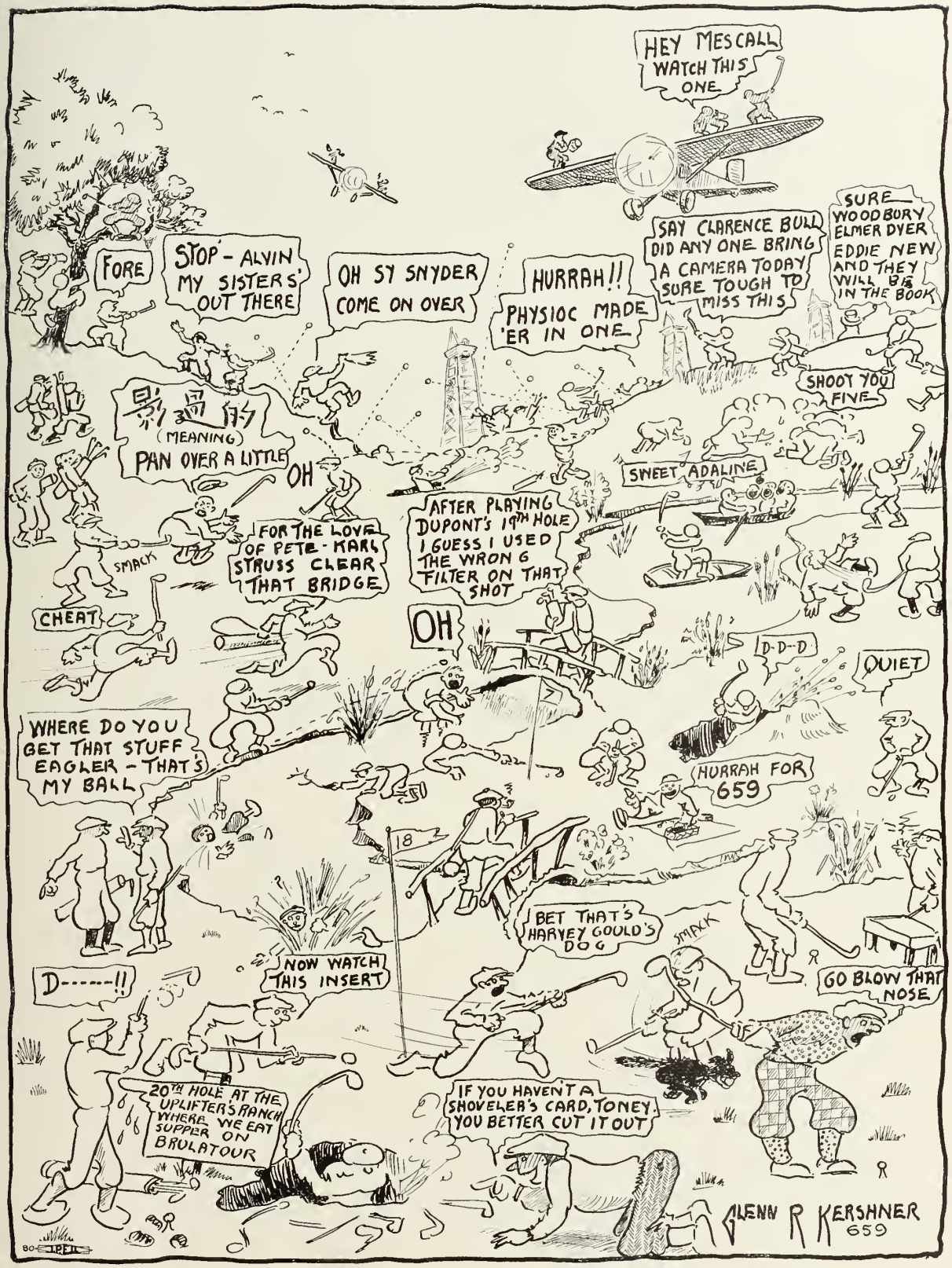


Secretary Roy Klaffiki as the "Sand-man"

Golf sticks broken 25	$ 268.00
Balls lost, strayed and kidnaped (7 dozen)	84.00
Twelve Caddies (worn out)	120.00
Locker rent (10 lockers), including cartage)	875.00
Trophies, gifts, prizes, tokens, remembrances, etc.	1,000.00

(Continued on Page 41)

As Cartoonist Kershner Saw It



Is Thirty-Five M. M. Passing?

BY

FRED WESTERBERG, Local 659

35 mm. film is in a bad way. It has been operated upon several times, successfully, but the patient seems to be passing by thousandths of an inch.

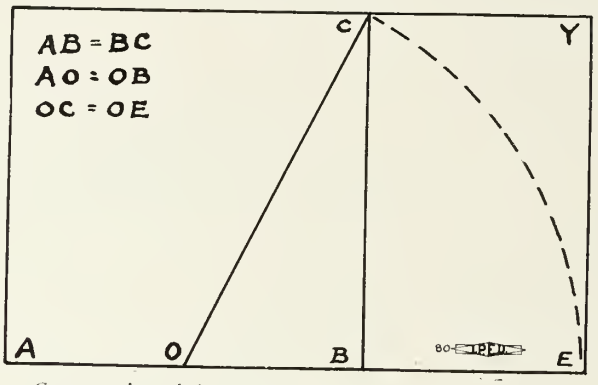
The beginning of the end may take place this month at the semi-annual meeting of the S. M. P. E. when the subject of standardization of wide film comes up for discussion. The session promises to be a merry one. It is hoped that cinematography and its needs will not be overlooked in the heat of battle.

There is a great need, for instance, for the following:

1. A satisfactory screen proportion. Not a freak, but one having genuine artistic merit as well as production value.
2. Sufficient area on the film to make possible the use of a large screen without recourse to excessive magnification and its attendant evils.
3. A reduced camera speed in order to alleviate to some degree, at least, the objectionable noise from the camera.
4. Moderation. The choice of too large a picture aperture, for instance, creating the necessity of using lenses of relatively great focal lengths having insufficient depth of focus at the larger stops.

The importance of choosing a good screen proportion cannot be over estimated. We today have the opportunity to make the motion picture a vital living force—a great graphic art of motion. The future in this respect may only be sensed at this time but this much can be done: We can lay the corner-stone by choosing a screen proportion that is at once dynamic as well as utilitarian. Static symmetry we may be sure has no place in motion pictures. We may all be very ignorant now of the real meaning of dynamic symmetry, which the Greeks knew so well, but some day by the sweat of our blood it may come to us.

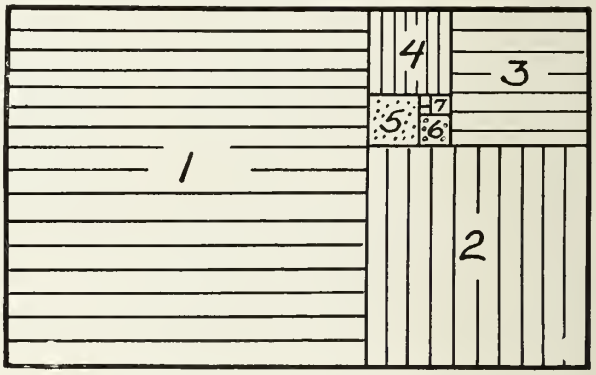
My choice after looking at the problem from many angles is the rectangle of the "whirling squares" having a ratio of 1 by 1.618.



Construction of the Rectangle of the Whirling Squares.

The importance of increasing the area of the film is self-evident. Repeated efforts to increase the size of the screen by still greater magnification of the photographic image have not been successful. Magnification beyond 300 diameters leaves much to be desired. Increasing the height of the picture to five sprockets would be quite a help.

(Continued on Page 34)



The Rectangle of the Whirling Squares

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This illustration shows the Akeley Gyro Tripod in actual use by the Western Electric Company, taking sound moving pictures.

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WARNER NICHOLS CROSBY

Hoke-um

By IRA

Naturally

Henry Gerrard poked his head into a camera booth over on the Paramount lot the other day to ask Harry Merland if the dwarf had sufficient light from that angle. Here's how it was done:

Henry Gerrard: "Harry, how is 'Shorty,' the dwarf, going to photograph?"

Harry Merland (after gazing critically through his camera): "From his general appearance I should say that he will photograph small."

— :: —

Heir?

Raider Olesen is the proud possessor of a very intelligent Australian sheep dog, yclept "Ole."

The other day Raider met Warner Crosby on Hollywood Boulevard. Following Raider came the ever-faithful "Ole" demanding attention from the new friend.

"What's the dog worth?" asked Warner, brushing a handful of hair from his blue serge trousers.

"Not less than $400," said Raider, proudly.

"Huh," grunted Warner. "Who left it to him?"

— :: —

Agreed

Virgil Miller: "So you want a transportation car just to carry your camera cases up to stage 7. Why, when I was an assistant, back in the good old days, I thought nothing of a hike like that carrying all my equipment."

Cliff Shirpser: "Well; you've got nothing on me, Virgil. I don't think much of it either."

— :: —

Waiting

Clyde DeVinna, now in darkest Africa, filming "Trader Horn," wrote us a cute little story for this column, but we are saving it until Clyde sends us some illustrations to go with it.

— :: —

Impossible

Speed Mitchell says these movie chorus girls may be as young as they look—but they can't be as naughty as they try to look.

Saved

Out at the Local 659 Golf Tournament some of the entrants were worse than others and thereby hangs this tale. A certain well known cameraman at his first mashie shot dug a huge divot several inches in front of the ball and a little worm crawled hastily out and climbed on the ball. The second attempt of the 659 entrant produced an even larger excavation behind the ball and another little worm left his happy home, joining his cousin on the golf ball. Said the second little worm to the first little worn: "Gee, we're lucky we got up here when we did. That guy would have killed us pretty soon."

— :: —

Catnip

"I'm the cat's," said the mouse, as the cat chased him into a camera booth.

— :: —

Gas

Bill Margulies: "How far do you get on a gallon?"

Jack Fuqua: "Gallon of what?"

— :: —

Statistics

Eddie Garvin, mathematical wizard, has just figured out that the people of Hollywood would own 45 per cent of California's automobiles if they were paid for.

— :: —

Sufficiency

Chuck Geisler: "I'm offa that blond dame for life."

John McBurnie: "How zat, Chuck?"

Chuck Geisler: "She wouldn't even accompany me on the piano without a chaperon."

— :: —

Unfair?

Voice on phone: "Hello, Howard—that you?—this is me."

Howard Hurd: "Yes, yes, go on."

Voice on phone: "I wanna know are brunettes on the unfair list."

— :: —

Tied?

Asst. Director (on way to Victorville): "Is this supposed to be a fast train?"

Conductor (proudly): "It sure is."

Asst. Director: "Well, what is it fast to?"

King Charney says . . .

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WARNER'S LOT

In the story entitled, "The Color Camera Outdoors," which appeared in last month's issue, the author confused different types of lighting. William Rees, who is quoted in the story as using incandescent lamps for outdoors, states that instead of incandescents, "hard arcs" were used outside exclusively.

William Rees, having recently completed photographing "Under a Texas Moon," in Technicolor, has been assigned the job as director of cinematography on Al Jolson's forthcoming starring Vitaphone special "Mammy" at Warner Brothers.

Irving Lippman, Warner Brothers still photographer, claims a record for the number of still pictures shot on a single picture. Lippman opened and closed his lens on more celebrities and shot more stills, it is estimated, on "The Show of Shows" than any other single picture. Over 100 stars appear in the Vitaphone screen musical revue.

Elmer Fryer, portrait man and head of the still department at First National, has outlined a plan that is getting studio publicity results and financially aiding the still men. Fryer offers a $5 prize a week for the best publicity still submitted by the men on the units. He finds that, in this manner, more and better off-stage stills are taken regularly.

REX WIMPY is handling tests, trailers and split troupes for the present. BOB RHEA has just returned from three months in Tennessee and his dialect is distinctly Bourbon-ese, proving that Tennessee is a part of the U. S. A.

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The Daily Grind

By RALPH B. STAUB

ERNIE HALLER just returned from the country. While there he met a farmer's wife who made a study of bugs —she was once a chambermaid in a Bowery hotel.

* *

MAX FABIAN says his assistant couldn't be on time, even if he sat on a clock.

* *

HARRY GERRARD sat in the moonlight with his girl. In the midst of their talk, the girl chirps: "Why don't you act like a Pilgrim and you may make better Progress."

* *

PHIL TANNURA just returned from the East and says he is going to settle down here, as soon as he can settle up in other places.

* *

Girl, to LESTER SHORES: "How much do you make a week?"

LESTER: "Oh, about $100 a week."

Girl: "Why, you're my idea of a woman's home companion."

* *

HAL MOHR's wife wanted a new spring outfit, so Hal bought her a pair of rubber heels.

* *

VIC MILLER says he knows a man who's so lazy he goes to see slow motion pictures only.

* *

ALVIN WYCKOFF'S idea of rigid economy is a dead Scotchman.

* *

DAVE ABEL says his assistant would like to know how they make telegraph poles grow in a straight line.

* *

DON BRIGHAM's girl is only a miner's daughter—but she has plenty of natural resources.

* * *

DIRECTOR TO GIRL: "Will you marry me?"

GIRL: "Yes, if I can get a cameraman to help support us."

* *

JOE McDONALD to young divorcee: "With my salary and your alimony we should save some money after we're married."

* *

FRANK REGGIN writes: "What Every Young Girl Should Know Before Marriage—How to Cook."

CLIFF MAUPIN quotes the first rule of photography:

It matters not how much a subject is over exposed—provided it is fully developed.

* *

Overheard in Chicago by REGGIE LYONS:

First Crook: "Let's go out and kill a few guys before breakfast."

Second Crook: "Can't—just loaned my machine gun to the chief of police."

* *

HARRY DAVIS says he knows a man who can speak Jewish fluently with one hand.

* *

LEO SHAMRAY knows a Sotchman who always goes out with a girl named Jane. Guess she's the kind that gives herself away.

* *

THE HEIGHT OF CINEMATOGRAPHY:

Assistant cameraman in new Packard roadster riding down Hollywood Boulevard waves at former director (now out of work) walking down the street.

—o—

TANNURA-WEITHOFF

Brother Philip Tannura, who has been directing two-reel talking comedies for Pathe in New York City, alighted in Hollywood from a big T. A. T. liner, the other day, on a flying trip to be married.

Brother Tannura's comedies, of which he has eight to his credit, have scored so heavily that his employers could grant him a vacation only long enough to fly to his wedding and return.

The bride is Alma Weithoff, daughter of Mr. and Mrs. Frank Weithoff of 1836 North Taft avenue, Hollywood, a charming and accomplished girl. The Tannuras will be at home after November 1, at 300 West Two Hundred and Sixty-first street, New York City.

Local 659 not only wishes Mr. and Mrs. Tannura a long, happy and triumphant life, but heartily congratulates the groom upon his enterprise and success.

—o—

Oh, yes! Nearly forgot MERLAND, SHIRPSER and WRIGHT who are cohorts in crime with HENRY GERRARD in his chromatic chroniclings.—Lasky.

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Toronto — Six-Sixty-Five — Toronto

BY

A. M. BEATTIE, *Secretary-Treasurer, Local 665, Toronto, Canada.*

Len Humphries, who has been straining at the leash for some weeks now and threatening to shake the dust of Toronto off his feet (temporarily), has definitely decided to sever all entanglements and motor to New York City for a week's holiday, starting sometime around the end of the month.

* * *

Bill Graham left the Ontario Government Motion Picture Bureau recently to take a position as staff man for Fox News in Montreal. Bill will be missed by all the boys.

* * *

Frank O'Byrne, formerly vice-president of Local 665, makes his bow as president. Frank succeeds Len H. Roos, who now has permanently located outside the Dominion and, therefore, is unable to carry out his duties. By the same token the position of vice-president has been filled by Len's brother, Charlie.

* * *

In this Local we make motion pictures and fly dirigibles. When the great blimp "Vigilant," of the Goodyear Air Fleet, came to Toronto some days ago, Charlie Roos was assigned to travel in it and make some shots of Oshawa, a city near Toronto, from the air. He took his young son Buddy, the Local's youngest assistant cameraman, with him. Charlie is connected with The Toronto Flying Club and Buddy also. They wear buttons and things to prove it.

* * *

When they started on this blimp expedition Buddy sat in the front section with the pilot and mechanic. Charlie was right behind where he could shoot.

The big gas bag was nosing along at sixty miles an hour when suddenly one of the engines gargled a couple of times and died. It was an awkward predicament. The pilot had seen Buddy's Flying Club pin and turning to him he asked:

"Can you fly an airship?"

"Sure!" Buddy replied.

The pilot handed over the controls to the Ace of Local 665 and then both pilot and mechanic climbed out over the front and began tinkering with the machinery. It was several minutes before a roar announced that the engine was fixed. The pilot and mechanic clambered back to the cockpit and another epic of the air had come to pass.

* * *

Your humble Scribe, who goes to the mat with the typewriter upon occasion and endeavors to give the motion picture fraternity the low down on local 665, leaves soon on a motor trip to Gaspe peninsula in Quebec province. Gaspe noses out in the great Gulf of St. Lawrence and claims scenery equal to any on the continent. Tell you more later.

* * *

Roy Tash, cameraman for Associated Screen News of Montreal, has been in town for the last two weeks making shots at the Canadian National Exhibition. Roy, we understand, is the champion long distance moth exterminator.

* * * *

This Local had the signal honor recently of entertaining Arthur Reeves, recording secretary; Roy H. Klaffki, financial secretary, and Howard E. Hurd, business representative of Local 659. Mr. Hurd's charming wife was one of the party. The visitors were met at the Union station in the morning and escorted to the Royal York hotel where a room was engaged for the day. Business was discussed during the morning. Following a light lunch the party was taken for a motor tour of the city. They repaired later to the home of Charlie Roos where refreshments were served and then went direct to the station and entrained for New York City, amid protestations of regret from members of our Local that their stay had been so short.

* * *

Fred Huffman, who for some weeks past has been sojourning in Alaska, arrived back in town this week. Those who have seen him report that he speaks now with a decided Eskimo accent. It is their contention, too, that it will take some time for him to become acclimatized again.

* * *

With a sun tan complexion that is the envy of every flapper in Toronto, and an attack of poison ivy that no one envies at all, Norman A. Gunn, secretary-treasurer of the local, blew into town from the north recently. He and his wife spent two weeks camping on the sands at Wasaga Beach, on Georgian Bay. He has been under the doctor's care for some time but now is well on the road to recovery.

* * *

George Rutherford, genial cameraman of the Ontario Government Motion Picture Bureau, left with his wife and family this week by automobile for Ottawa and points East. It is expected that they will point west about the middle of next week.

* *

We have with us again Roy O'Connor, who left the ranks of the cameramen (but not the Local), to manage a theatre in the eastern part of the city. Roy is back with the Ontario Government Picture Bureau.

———o———

Annoying

Non-union Assistant: "What are you doing, Bill?"

Bill (659): "Don't bother me. I'm totaling my day's footage, and every time I look at you I put down zero."

— :: —

Generous

First Extra Girl: "What are you writing, dearie?"

Second Extra Girl: "A joke."

First Extra Girl: "Well, give him my love, too."



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IS 35 M. M. PASSING?

(Continued from Page 28)

It is hoped that increasing the picture to five sprockets in height will make it possible to reduce the camera speed without detriment to the sound track. Relief is certainly needed from the excessive vibration engendered by the high speed of twenty-four pictures per second. Every means should be taken to enable the camera to function without an overcoat.

Moderation in all things. We are concerned now in making use of wide film as a new universal medium. There surely is no place for freak measures that rob Peter to pay Paul. Perfection as near as possible should be our goal. To compromise at this time because of expenses already incurred may prove very costly indeed in the long run

The following standards are respectfully submitted—just a little something to meditate upon:

1. Motor speed, 1200 revolutions per minute.
2. Camera speed, 1200 pictures per minute.
3. Film speed, 100 sprockets per second.
4. Heighth of picture, 5 sprockets.
5. Width of film, 51 mm.
6. Size of camera aperture, .910″ x 1.460″.
7. Size of projection aperture, .890″ x 1.440″.

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Natural Vision Pictures

BY

ARTHUR REEVES

Having been in the employ of Mr. George K. Spoor for a number of years I called upon him while in Chicago recently to ask him some pertinent questions about his wide film process.



ARTHUR REEVES

In our first discussion he assured me he had his process thoroughly covered by patents. Many years ago he saw the coming need of better pictures and noted that the theatres were increasing in size and the picture was remaining the same. Basing his researches on these observations he set out to make new tools to give the public better pictures.

I pointed out that there were several sizes of wide film such as Widescope, Fox Grandeur and others and I also called to his attention the article in **The International Photographer** of recent date relative to the proper proportions as set up by dynamic symmetry.

Mr. Spoor informed me that the size of picture he was using was no guess work, but was determined after many tests and much money spent in experimenting with different size equipment. I was under the impression that his proportions were not the best and told him so. Mr. Spoor then called in Mr. Al Sties and Mr. Bergren, his chief technician, and we proceeded to the projection room.

An entire studio was used for a theatre, the picture projected upon the screen being 42 feet wide, and 22 feet high. The picture shown was made up of some scenes recently shot at Niagara Falls with Spoor's new camera. When one has seen Niagara Falls and realizes the magnitude of this great natural wonder he will certainly appreciate what has been accomplished by Mr. Spoor. I will say this: The proportion as I saw it surely was pleasing and at all times looked correct to me. Before I viewed the picture I thought that the height was not right but this idea was soon dispelled when I had the picture before me.

From my point of view I find no fault with Mr. Spoor's Natural Vision Pictures. The picture, as projected on the screen, was steady and at all times perfect. One very impressive show was that of the entire Horseshoe Falls before my eyes. With sound the illusion would be com-

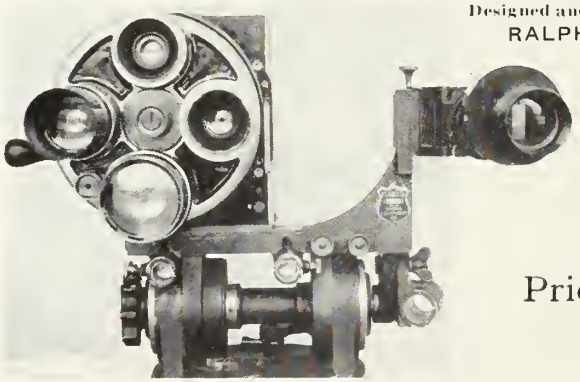


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plete; one would never need to go to see the falls.

During the screening we discussed the picture as plastic and having natural vision. Mr. Spoor declared that he never claimed that the picture was stereoscopic as reported by the newspapermen. The word "stereoscopic" is a word that is used by people who do not know its real meaning and many times the reporters do not know how to use the proper words to describe Mr. Spoor's process. I wish to state that I have never seen anything on the screen so impressive in my life.

After viewing the pictures we went over to the machine shop and saw some of the new projectors and the new cameras. The projectors are well built and hold the film in perfect contact with the aperture plate during projection. The camera is of the new type using the regular Mitchell tripod and thousand foot magazines. It weighs only eighty-five (85) pounds. It has some new features. The magazines are not driven by a belt, but are directly connected by a jointed shaft and have a novel clutch. The film is registered on pilot pins during exposure and the movement can be run at ultra speed. The dissolving shutter is surely a new departure in cameras; it is so very simple and can do anything any other shutter can do. The focusing arrangement is also simple and focusing can be accomplished very quickly.

Major Spoor, brother of George K., is the cameraman operating the new Natural Vision camera and he is also treasurer of Local 666, I. A. T. S. E.

WELCOME MR. McCALL

Tek-Nik Towne, Local 659 and **The International Photographer** all extend the glad hand to Mr. J. D. McCall, late of New York, who has just arrived in Hollywood to take charge of the business office of the Mitchell Camera Company. Mr. McCall has been for the past three years office manager and auditor of the National Theatre Supply Co., and was but recently eastern district auditor for the same organization. Mr. McCall spent a year on the West Coast a few years ago and expresses himself as being glad to reside here permanently. The cameramen wish Mr. McCall success and happiness in his new connection.



J. D. MC CALL

—o—

THE A. OF M. P. A. & S.

At a joint meeting of the Academy of Motion Picture Arts and Sciences Technicians Branch, the American Society of Cinematographers, and the Los Angeles chapters of the Society of Motion Picture Engineers and the American Projection Society September 19, in the Academy lounge at the Roosevelt Hotel, Hollywood, a resolution embodying the following recommendations was adopted:

That although the whole frame is to be photographed as at present all vital portions of sound-on-film pictures should be composed within an area of 0.620 by 0.835 inches, so that in theaters which use a smaller aperture the heads and feet of characters will not be matted off. It was also recommended that theaters which make a practice of restoring the full screen proportion from sound-on-film pictures do so by the use of an aperture whose size would be 0.600 by 0.800 inches on the basis of projection on the level, the horizontal center of the aperture coinciding with that of the S. M. P. E. standard aperture.

This resolution was based upon the report of a joint committee of the organizations named which conducted a national survey of theater chains and production studios in which it was found that an increasing number of theaters are restoring the three by four full screen proportion by matting off the top and bottom of sound-on-film pictures.

Joint committees from the technical societies were also authorized to investigate and make recommendations on release print standardization and screen illumination.

The present variation in the length and marking of the leaders on prints from different studios and laboratories and the difficulty encountered by projectionists when no silent frames are allowed at the beginning and ends of reels for change-over will be included in the investigation. Frame lines marked in the leader for accurate framing of sound-on-film pictures, and more conveniently legible part numbers will also be considered for recommendation.

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A Work of Art



The beautiful trophy so proudly displayed herewith by Brother Elmer Dyer constituted the grand prize of the First Annual Championship Golf Tournament of the membership of Local 659, International Photographers of the Motion Picture Industries, I. A. T. S. E. and M. P. M. O., held at Westwood Country Club, Los Angeles County, Sunday, September 8, 1929.

This is the permanent trophy of Local 659 upon which will be engraved the names of the annual champions as the years pass by and which will adorn the walls of 659 headquarters between contests.

This exquisitely fabricated work of art is a product of the studios of J. A. Meyers and Company, Inc., Jewelers, 822 South Flower street, since 1912. It is of gold and silver mounted on mahogany and the size of it may be accurately visualized by comparing it with the husky torso of Mr. Dyer.

The donors of this trophy are Smith & Aller, West Coast distributors of Dupoint Motion Picture Film and, both in originality of design and in quality of workmanship, it will not soon be surpassed.

J. A. Meyers & Company, Inc., also made the ring offered by **The International Photographer** as its contribution to the prize list of the tournament and this firm likewise designed and built the solid gold I. A. T. S. E. cards recently issued to the life members of Local 659 for valuable services rendered.

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—o—

We have both right and might on our side when we give all our patronage to the Union Label, card and button.

—o—

Emory Huse, of the Eastman organization, has returned from his vacation in the Pacific Northwest.



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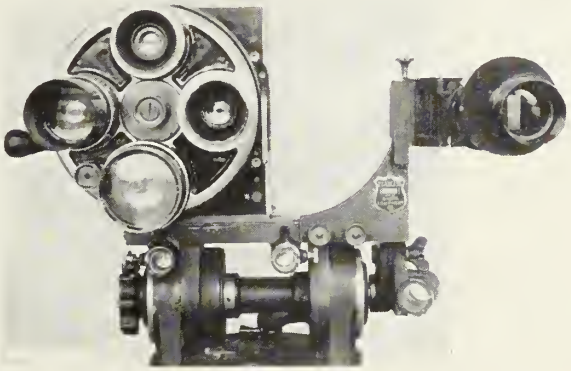
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Fearless Finder Bracket



Cinema Equipment Co., 7160 Santa Monica boulevard, Hollywood, in keeping with their policy of building new and better devices for the cameraman, announce a new addition to their rapidly growing line of attachments for cameras. It is the Fearless Finder Bracket for Bell & Howell cameras, suggested by Jackson Rose, Tiffany-Stahl's premier cameraman.

The distinct advantage of this Finder Bracket is instantly apparent to the cameraman. Instead of having the view finder attached to the camera, as is the practice now, the view finder is attached to the tripod head by means of the Finder Bracket. Thus, the view finder does not move as the camera is shifted, but remains always in a fixed position.

The Fearless Finder Bracket is an aluminum casting of rugged construction and machined to insure an accurate fit to the tripod head. By reason of this accurate fitting, absolute rigidity of the view-finder is assured.

All of the features of the view-finder are retained, enabling the cameraman to swing the finder out of position when opening the camera door for threading, etc.

It is but a matter of seconds to detach the Finder Bracket. Two knurled screws, which remain in the Bracket and cannot be lost, are loosened and the Bracket removed from the tripod head.

The Fearless Finder Bracket is so moderately priced that no Bell & Howell camera owner can afford to be without one.

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WATCH YOUR POCKETBOOK

Our inquiring reporter went along with the boys to the Bell & Howell factory and lunch and found much to comment upon. Inasmuch as he quotes "We," and we like to see our name in print too, we are not going to use the blue pencil in any instance. He says:

The most interesting feature of the meeting was a demonstration of the new camera silent mechanism designed by Mr. Howell, chief engineer of the Bell & Howell organization, which has been quite thoroughly described in a paper by Mr. Howell and Brother Dubray, at the Spring convention of the Society of Motion Picture Engineers.

The fine points of this apparatus were pointed out by Brother Dubray and discussed. The visitors were thoroughly impressed by the perfection of construction and the functioning of the movement, and they were loud in the praise of Mr. Howell's ingenuity and inventive genius.

Brother Dubray announced that the movement had reached its final stage of development and that the engineers of Bell & Howell were so satisfied with it that they expect to make shipment of a complete camera, equipped with the new mechanism, to Hollywood in the very near future for actual presentation to the production field.

After Dubray's explanation, Brother Cour expressed his opinion by saying: "If the movement is as good as it sounds, and if it SOUNDS as good as it looks, goodbye worries!"

Several other matters of technical and commercial interest were discussed, and Brother Reeves could not refrain from noting and remarking that **The International Photographer** was foremost in sight on Brother Dubray's desk, in spite of the "tons" of documents, papers and correspondence which covered it.

The means by which a closer contact could be brought about between the Bell & Howell Company and the cinematographer were discussed and plans outlined which should prove very beneficial to both.

The International Photographer was made the subject of prolonged and interesting discussion and Brother Dubray especially was loud in praising the splendid work of the Editorial staff in general and of his old "pal," Si, in particular.

A good time was had by all.

SIX-SIXTY-SIX

John C. Zimmerman of Kansas City, who waded through most of France with the First Division, making goals on every kick-off of the Big Bertha, is wrestling with a Pathe-Sound-News Photophone problem. Zim is sweating a bit. Maybe it's age creeping on?

Floyd Traynham and Walter Hotz have taken the variable area by storm and are now digging in.

Bill Storez, of Fox News, has a nice new sound man for the World Series.

Bill Scanlon, who has been recording variable area, variable density and disc for more than two years, has given up being engineer, recorder, microphonist and cameraman of his secret experiments and has taken up book reviewing. Since his entrance into the big time novelist class he gets a copy of all war books absolutely free—for his opinion.

"How the Heck," not to use his own

International Photographers of the Motion Picture Industries Local 666, I. A. T. S. E. and M. P. M. O., of the United States and Canada

By EUGENE COUR

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12 East Ninth Street, Chicago

BULLETIN—The regular meetings of Local 666 are held the first Monday in each month.

words, "can a fellow experiment or write novels, when his whole time is taken up reading the other fellows war novels?"

We are not an expert on the subject so we pass his question on.

SIX-SIXTY-SIX

WHERE ARE WE AT?

Three Camerateers of 659 breezed into the breeziest city in America and outblew their Windy City brothers by an avalanche of conversational grape fruit, orange blossoms, ripe and green olives and weather. Then they turned on 365—count 'em—365 days of sunshine. Did they dazzle us?

We hang our heads in shame. We are compelled to admit one rainy day the past year and to make the confession good we believe we remember one day last February that the thermometer dropped below seventy in the shade.

Yah! But how about the tremors!

It happened to be our good fortune to meet Genial Hurd, Ardent Klaffki and Chisler Reeves, in New York City, as well as in Chicago. We understand the New Yorkers were left with only their hides, while we—well we're still in a daze.

SIX-SIXTY-SIX

WHERE DO WE SIGN?

Art Reeves took up most of our last regular meeting selling us the idea of **The International Photographer.** His selling talk was superfluous. We were cheering it before his arrival, but we are checking up on him to find out how many of our members bought summer cottages fronting on the Salton Sea.

SIX-SIXTY-SIX

WITH THE RACKETEERS

Norman Alley, erstwhile Eyemo expert of the International News Reel, is now holding up the camera end of a Metrotone Sound Truck. How heavy is a Western Electric truck?

YES! YES! THIS IS HE

We learned about hospitality from Floyd Traynham, our Georgia wizard. Speaking of that irrepressible story of the host who drank from the finger bowl because one of his guests hadn't the advantage of an Emily Post course—Traynham will join in the chorus of "Marching Through Georgia" and extoll the virtues of Sherman.

All of which is merely by way of expressing the wish that our visiting members will not regard our sweating over the telephone during their visits as any lack of hospitality. Example:

"Well! Well! Ralph Biddy of Indianapolis, just a moment. Yes! Yes! I got it. A choke coil for the O. P. Goodbye Biddy. Yes! Yes! the truck is in the ditch, can't budge it. Get a caterpillar. Kenneth, our man, Eddy of Sault Ste. Marie. Hello Eddy—Yes! Yes! Two prefocussed lamps. Yes! by air mail. Sorry Eddy, stick around awhile. Put him on, Yes! Yes! Well, Charley Giese, just a moment—What's that! Holding the truck at the jail for speeding. We'll put fixit Giese on it. Hell Logan. A few pointers on sound—say man, if I knew ten times as much about sound, I wouldn't know anything. Yes. Yes-s-s!" fade out.

SIX-SIXTY-SIX

WE TOOK A DAY OFF

Brothers Art Reeves, Floyd Traynham, George Moore, J. F. Mitchell and Eugene Cour were the guests of Joseph Dubray, Bell-Howell technician, at luncheon. (Five other expense accounts will testify to this.)

SIX-SIXTY-SIX

THEY SHIVER AND SHAKE

Hal McAlpin, of Kansas City, is now doing Hollywood. H. E. Thoensen of Des Moines, Ia., who has been on the Coast for some time, has returned to the Hawkeye State. We are informed that everytime a heavily laden truck drives by our Mid-west boys—well no matter.

SIX-SIXTY-SIX

We are reminded that members of Six-Sixty-Six have been leaving our jurisdiction without proper traveling credentials. Members of our local must have proper traveling credentials. Get in touch with the secretary before leaving our jurisdiction.

———o———

Evidence

Despondent Asst. Director (Trying to find a backwoods location): "I see by the papers there has been a lot of picnickers around here."

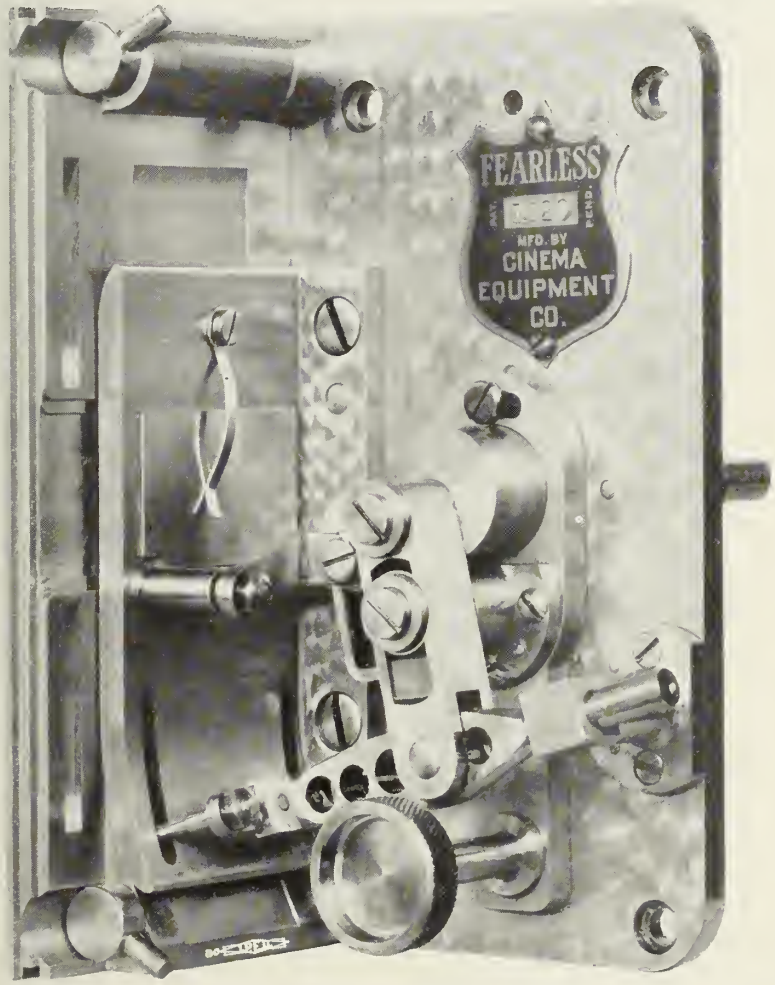
— :: —

Safety

Dan the Dip: "Quick, my boy, the cops are after me. Where can I hide?"

Asst. Cameraman: "Try the accounting office; it's impossible to find anybody there."

The Fearless High Speed Silent Camera Movement



Pictured above is a Fearless Simplex movement which is designed for both the Bell & Howell and Mitchell cameras. These movements were designed to fill a long felt need in the industry, that of a silent high speed camera movement so necessary in this day of sound work.

It is a matter of just a few hours time to replace the standard Bell & Howell or Mitchell movement with the Fearless Simplex movement and to make the necessary shutter changes.

The Fearless Simplex movement is really silent. By silent is meant that the only way any noise can be heard from these movements while in motion is actually to place the ear in physical contact with the frame of the movement.

These movements are built as accurately as it is possible for precision mechanics and precision machinery to function. The pilot pins fit the film perforations closer than any other movement on the market. This insures absolute registration for double or multiple exposure work. Side guides for the film are also fitted. This eliminates any possibility of film weave. As far as is known, this is the only movement in which the pilot pins lock the film during the entire period that the shutter is open.

The Fearless movements are extremely rugged in construction and absolutely fool and trouble proof if properly cleaned and lubricated at regular intervals. The movements are fitted with quick release connections on the aperture plate so that it is only a matter of seconds to remove the aperture plate for cleaning. Incidentally, this is the easiest movement on the market to thread.

Every moving part is hardened, ground and lapped. The finest of non-corrosive metals procurable are used throughout, and if properly maintained and lubricated there is no reason why a Fearless Simplex movement should not last indefinitely. Due to the fact that an eccentric instead of a cam is employed for moving the film, the chance of wear ever developing in the film moving parts is negligible.

The Fearless Simplex movement is manufactured by the Cinema Equipment Co. of Hollywood. Headed by Ralph G. Fear, one of Filmdom's pioneer engineers, the Cinema Equipment Co. is acknowledged as one of the outstanding institutions of its sort in the film industry. Housed in a spacious factory building at 7160 Santa Monica boulevard, Hollywood, the principles of perfection in design and workmanship are rigorously adhered to, and the policy of keeping ahead in step with the industry with new and better devices is consistently maintained.

INSTALLATION OF LOCAL 683

On Sunday, September 23, 1929, at Hollywood Chamber of Commerce, the installation of Local 683, I. A. T. S. E., Laboratory Workers of the Motion Picture Industries, took place under the direction of Cleve Beck, fourth vice-president of the International Alliance of Theatrical Stage Employees.

Local 683 entered upon its career with approximately six hundred members and of that number about one-third were present, an enthusiastic and hopeful group.

Among those representatives of affiliated organizations present were President Alvin Wyckoff, Business Representative Howard E. Hurd, Recording Secretary Arthur Reeves and James R. Palmer, assist to Brother Hurd, all of Local 659. William Scott, of Local 33 and Lew Blix, Local 37, also were present and all delivered brief addresses of welcome.

The following named members were unanimously elected officers: President, Thomas Bryan; first vice-president, Wilson Leahy; second vice-president, Mabel Bohen; business representative, Carl Kountz.

An executive committee of seven members was elected.

GOLF TOURNAMENT 1929

(Continued from Page 26)

Barbecue at Uplifters' Club including extra pies	4,000.00
Damage to oil derricks and windows in new Westwood High School	1.65
Delay at nineteenth hole (2 hours)	311.72
Wear and tear on golf clothes	42.00
Gas (L. A. to Westwood to Uplifters' and return)	5.44
Cigarettes	143.00
Incidentals, sundries, etc. (estimated)	933.21
Total cost	$7,784.02

Or $3,892.01 each.

"Great, Wes., we got off easy."

"Not bad at all, E. O., not bad at all."

"Well it's agreed then that we raise the cost of raw stock, Monday, eh, what, Wes?"

"Right O, put 'er there, Eddie."

(And that's why raw stock went up Monday.—Editor's Note.)

IN SCHOOL

Teacher: Give me a sentence with the word coincide in it.

Young Punk: I'll coincide and try to think of one.

* *

MORE SPEED

Dev Jennings has three grips named "Red." He says he wants three more, then when he calls "Red" one of them is bound to answer.

Out of Focus



SOCIETY NOTE

A large gathering of camera artists as well as a few Second and First cameramen were entertained last week at a reception given at the palatial residence of Brother Maurice "Speed" Hall.

A novel though instructive game was introduced during the evening. It is called "Sock-oh," and was invented and originated by Brother Hall. Each guest is presented with a pillow and in one of the pillows is concealed a cobblestone of large dimensions. At the command of: "What ho! Sock-ho," you proceed to sock. Gradually the guests pass out, quietly, but thoroughly.

The last gent remaining upright received a prize.

A peculiar thing happened this particular evening. It seems as if the First Cameramen were socked the hardest and took the longest to recover, but "Speed" says the expressions on their faces were "extraordinary." The prize was won by "Speed." Later on Brother Hall gave an organ recital. He explained that his lungs were in good shape, but his liver was a little pale and that his heart action was normal and considering the condition his spleen was in he was in pretty good shape.

* *

NEW LINGO

"Chuck" Geissler says: "When the head "Ma Goo" says "clean 'em," he sure makes the dirt "scram."

* *

LETTERS RECEIVED

Dear Mr. Out of Focus: Went to San Diego on location last week and traveled both ways by plane. Do I get additional pay as per Paragraph 7, Aerial Flights. Answer: Better keep quiet or they will charge you for the ride.

* *

Dear Mr. O. of F.: Can you tell me the quickest way to get into the movies? Answer: Check up on your relatives.

* *

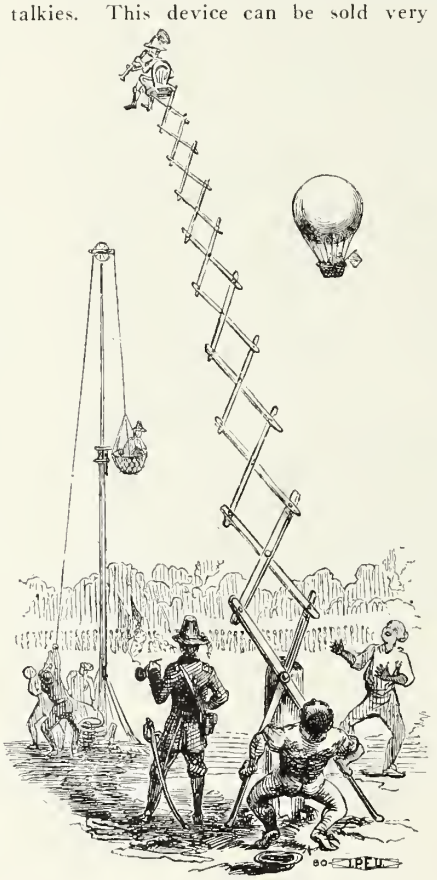
Dear Sir: Can you give me the address of Amelia's Chili Hutch that you mention in the last issue. Answer: I am sorry that we are not allowed to advertise in this column, but it is in the 900 block on North Western avenue.

* *

Dear Sir: My sweetheart wants me to take some pictures of her sitting on another fellow's lap. How would you shoot this? Answer: I would shoot it with a shot gun, but you had better try a cross light with a Brownie.

New Inventions

Jackson Rose has just invented a new machine which insures good sunlight at all times, by sending the assistant cameraman up on this device to watch for the sun and notify his cameraman when it is coming out. It can also be used to warn all airplanes from approaching too close to the studios while shooting talkies. This device can be sold very reasonably to studios and directors and can be furnished with or without an assistant. All patent rights reserved by Jackson Rose. Can also be rented by the day. For rates apply to Howard Hurd, manager of the Sight-o-Graf Co. Various models can be had as per illustration.



MACHINES FOR FIELD RECONNOISSANCE.

Brother Rose's invention is shown in action in the accompanying marine view. The strong man operating it is Fred Westerberg. The director stands at Fred's left. Figure at extreme right is Paul Perry ready to catch the assistant when he falls. Upper right, the Graf Zeppelin. Picture at left shows the sound recorder with "mike."

ADD SIMILIES

As clean as a Technicolor prism.

As heavy as a 20 minute negative.

As refreshing as a Lasky booth that has a fan and forced air.

* *

"Why bring that up," said the cameraman, on a 20-foot parallel, as his assistant handed him a short end.

* *

Received a postcard from Alf ("Bud") Williams from Medan, Sumatra. Care De Boar Hotel which is his address for the time being. Drop him a line and get a postcard all the way from Sumatra. It's more fun.

* *

DO YOU KNOW

That Chas. Reily is a big motorman at M-G-M.

That Warren Lynch worked for the Snyder Catsup Co.

That they sometimes call Percy Hilburn Elmer.

That Chas. Shoenbaum would like to do another Western.

That Pev. Marley has the figure 7 on most everything. Right, Lena?

That I now punch a time clock and think it's just dandy. First time since I worked for Henry, inspecting flivvers at 37½c per hour.

That a cake of ice will not get out of order, but a Frididaire will not smoke your best cigars and drink your "sassaparilly."

That according to the butcher a heavy heart is worth more than a light head.

That I did not mention the golf game. Extreme emergency. I had a job.

That Billy Tuers can show you the Union Label in several unusual places.

That Karl Struss sent in six subscriptions for the magazine.

* *

RUBBER NEWS

Our esteemed vice-president, Brother Cleve Beck, has only recently launched a sales campaign of the product grown on his southern rubber plantation. President Canavan advises that he is the recipient of one of Brother Beck's new advertising boxes containing many samples involving new ideas and most certainly destined to please and satisfy the most discriminate.

———o———

Without the Union, all labor would still be the victim of the long day, the insufficient wage and kindred injustices. Under the present organization of society, labor's only safeguard against a retrogression to former inhuman standards is the Union.—*Commission of Social Justice,* Central Conference of American Rabbis.

ELECTRICAL RECORDING

(Continued from Page 20)

the natural resonance of the elements of the system about three thousand cycles, or even higher, most of the sound will be translated at a uniform efficiency. But the trouble is that this uniform efficiency is so low that practically all of the sound energy is lost. Thus the horn would have to be very small, the diaphragm would have to be very stiff and taut, the recording stylus would have to be tensioned tightly. Intuitively most people would realize that such highly strung parts would only respond to very powerful impulses. With electrical recording and reproduction of sound, the energy may be amplified so that there is enough to record, the distortion due to mechanical resonance may be completely neutralized and a thoroughly faithful recording and reproduction of the sound is possible. When the records as now made are played on a high grade electrical phonograph, the average person will fully agree that the new way is much better than the old.

Electrical recording has some further advantages and possibilities that are peculiar to it and have no counterpart in the mechanical processes. The recording instruments can be any distance from the source of sound so long as wire or wireless telephony is possible between the two places. Each player of an orchestra may sit as he ordinarily does and in fact the recording may be carried on with an audience enjoying the music at the same time. A transmitting instrument may be placed near each player and the electrical currents combined later. One patent, 1,540,317, goes even further. Between each transmitter and the common junction is placed an electrical network that has the property of slowing up the speed of transmission of the currents. This is equivalent to lengthening the acoustic path between each player and the recording needle. In this way, the actual grouping of the players may be transformed to any desired virtual grouping and objectionable interference between sound waves that are out of phase is eliminated. A person may switch on a loudspeaker to any circuit and see how any one instrument is feeding into the circuit or may listen to the ensemble and determine the quality or volume. The operator may increase the volume of any instrument relative to the others or decrease it; he can do the same for the entire orchestra if necessary. The patent to Wier, No. 1,617,428, discloses tricks possible with electrical methods that the ordinary person would not even imagine. Thus several records may be combined into one. Filters may be switched in or out so that portions of the scale may be emphasized or suppressed and thus brilliance is possible in reproduction where the record itself lacks it. It is even possible to make a secret record that can be reproduced only by special apparatus. Probably one of the most practical and desirable possibilities is the fact that a wax record can be made so that it will play for over an hour where a mechanical record will only last for three minutes. The patents to Meissner 1,604,130 and to Dyer 1,570,297 disclose this.

The ordinary wax records have about 100 grooves to the inch with a groove width of about five-thousandths of an inch. By increasing the pitch to several hundred grooves to the inch, decreasing the groove width to about one-thousandth of an inch, a track about five times as long may be obtained. Furthermore, by decreasing the speed of rotation to a fifth of the normal speed, thus making the sound groove curves sharper, five times as much may be put on a unit length of track. The net result is that about twenty-five times as much matter may be recorded on a wax record of standard dimensions as is the case now. It is perfectly possible therefore to record a book on a double record or two so that the blind may enjoy it; it is just as possible to record an entire opera or a play instead of having a small portion of it. This type of a record is only possible with electrical recording and reproduction. The ordinary type of reproducer would break the grooves and would not produce audible sound. By employing a very delicate electrical reproducer and amplifying the currents, a loud speaker may be used. From a commercial point of view, such records would be very desirable and greatly appreciated. It is understood that such records are on the market already but due to the fact that their reproduction cannot be effected by mechanical means, the field is somewhat restricted.

Three General Classes and Apparatus Common Thereto

Electrical sound recording divides itself into three sharply defined classes. The same is true of the reproduction. There are methods of recording and reproducing that do not fit into these classes but most of the work is along these three classes. What has been stated to be the advantages incident to the electrical processes applies to all electrical processes excepting where the advantage or improvement is specific to wax records. The three classes are wax records, records obtained in general by photographic means on a film, and magnetic records. All the electrical processes of recording have the initial step of transforming the sound waves into electrical current waves. The electrical reproducing processes have as their final step, the conjugate of the initial step in recording, the transforming of electrical current waves into sound waves. Amplification of electric currents is also the same in all processes, or may be the same.

Before considering each system, the problems and devices that they have in common will be disposed of.

Sound waves may be transformed into electrical variations by three general types of apparatus. The most common is the microphone type and depends upon its operation by resistance variation. The ordinary telephone transmitter has loose carbon granules, which are alternately compressed and loosened up by a diaphragm, and which varies the intensity of an electric current supplied by an outside source. In the same class is the electric arc where the sound waves impinge upon the arc between two electrodes and cause a variation in current. Then there is the type where an ionized field is produced as by X-Rays and an acoustically vibrated magnet varies the ionization, or a hot filament emits electrons and the distance between the filament and other electrode is acoustically varied. The carbon granule type is the most common example of the microphone class of transmitters and is the most widely used. The advantage of this device is that a comparatively large output may be obtained, since an outside battery serves as the source of electrical energy, the sound waves merely modulating the current. The next type is the electromagnetic, in which current is generated in the same fundamental way that it is generated in a dynamo. This may take a variety of forms and any one of the three elements of this, the magnet, armature, or coil, may vibrate. The third type is the condenser in which the capacity of a condenser is altered by acoustically vibrating one or more of the plates that form one side of the condenser. Both the electromagnetic and condenser type have an extremely feeble output and are useless without some means of amplifying the current. Both these types may be made extremely sensitive and are capable of very faithful translation, much more so than the microphone type. However for ordinary commercial recording, any one of these devices may be made to give very satisfactory service. The ruggedness and simplicity of the carbon granule microphone keeps that in greater use than any other type. In addition to these types, there is the thermal transmitter in which a hot wire has its resistance varied by the sound waves cooling it. This is a species of microphone but is more of an oddity than anything else.

The means for transforming electric currents back into sound are fundamentally the same as the transmitters. The microphone type is generally irreversible but the electromagnetic and condenser type can be reversd so as to emit sound. Most radio enthusiasts are familiar with the various types of loudspeakers, in fact almost everybody is to some extent, so no more need be said on the subject.

It will be noticed that both the transmitters and loud-speakers have vibrating mechanical parts in most cases. These parts have their resonant periods and unless means are used to overcome or eliminate this distortion, electrical methods would have nothing over mechanical methods. A variety of means is possible. As was stated above, the parts may be so made that their resonant periods are far above audibility. In that case most of the distortion is absent. Since the power may be amplified, the actual efficiency of the transformations is not important, providing the efficiency does not really become too low. Another way is load the element by making it work against some uniform load. This may be accomplished by rubber packing inserted between some vibrating part and a stationary part. A sponge filled with oil so that a dashpot action in the pores of the sponge results may be used; an air column, leaves of paper or anything that imposes a load that is independent of the frequency may be used. This tends to take out any resonance in the vibrating part and makes the response uniform. There is also an electrical method for accomplishing the same result. This method depends upon the fact that a circuit carrying alternating current behaves in the same way as a vibrating

mechanical element as regards resonance. If the inductance and capacity of such a circuit are so adjusted as to have a certain definite relation to each other, it will be found that the circuit actually offers less impedance, that is resistance in a loose sense, to the flow of an alternating current. In other words the circuit becomes a more efficient transmitting medium at that frequency. Of course, as the frequency changes the efficiency falls off very sharply as in the case of a mechanical element. The curves in both the mechanical and electrical cases are similar. Such a circuit may be placed across a transmitter. Assume the transmitter operates most efficiently at 1000 cycles. The object is to cut down the output at that frequency so that the efficiency will be no better there than at any other frequency. If the circuit placed across the transmitter is adjusted so that at 1000 cycles it conducts most efficiently, then the output of the transmitter at that frequency will be practically wasted in going through this short circuit. This shunt circuit does not affect frequencies far from resonance so that the output of the transmitter as actually fed into an amplifier may be adjusted so that it is uniform for all frequencies. The same thing may done with a loudspeaker, recorder or reproducer or anything that vibrates. Electrical circuits that act selectively on certain bands of frequencies are well known and in this manner not only can mechanical distortion be neutralized but the distortion in any part of the electrical system may be neutralized. It is this feature that makes possible such faithful translation of sound into a record and back again into sound.

In connection with eliminating mechanical distortion in an acoustic system, it is very interesting to consider how the Western Electric Co. and Bell Telephone Laboratories solved the problem. It is a very curious thing but the mathematics and theory of what happens in an electric circuit when an alternating current passes through has been much more highly developed and understood than in a mechanical system which is conducting vibratory energy. In electricity things happen in accordance with certain simple laws and the departure of the actual from the theoretical is very small. Measurements may be made with greater accuracy, ease and sensitivity than in mechanical systems. To simplify the mathematics in mechanics, many idealisations are necessary and these are very often quite a departure from the actual happening. At any rate the fact remains that mathematical analysis of an electrical circuit and its properties has been developed to a higher degree than in mechanics. A certain similarity in the fundamental properties of electricity and mechanics was observed. Thus mass in mechanics was considered to play a similar role as inductance in electricity. Elasticity corresponded to capacity. In fact an entire system of analogues between electricity and mechanics has been built up. The well known equations of telephone circuits were transformed into corresponding mechanical equations and a mechanical system built in conformity with those equations. Thus considering a phonograph reproducing mechanically, the needle is vibrated by the sound groove and transmits the energy to the diaphragm. The needle was made to have a predetermined elasticity, moment of inertia, mass so that it transmitted the energy at a uniform efficiency for all frequencies. The diaphragm was made to have the same properties. The horn was so made that it acted as a pure conductor, like in a telephone line. All this was done by making the constants to conform to the equations. Artificial loading by means of springs, weights, leaves of paper was used to get these constants to the desired value. The same thing is old in telephony where the line may be loaded with inductance at various points to overcome the capacity of the line. This principle was applied to transmitters, receivers, recorders, reproducers, horns and in fact any element of an acoustical system. The Orthophonic Victrola is the result of this work. All this is disclosed in greater detail in British patents 230,876; 231,216; 231,409; 231,410 and others to the Western Electric Co.

The most common amplifier is of course the three electrode vacuum tube. However there are two others which, though not used at all in practice, are interesting. One is a mechanical amplifier and consists of a rotating cylinder of some porous substance like chalk which is moistened with some electrolyte. A brush bears on the rotating periphery and this brush is mechanically connected to a diaphragm. A weight or spring tends to bias the brush and diaphragm in one direction. Telephone currents are conducted so that they pass from the moistened peripheral surface to the brush. The friction between the brush and surface is altered according to the intensity of the current and direction as well, and the result is that the brush is dragged a little ways forward and slips back and vibrates back and forth in that manner. Another patent shows an electromagnet fed by telephone currents which acts as the retarding force to a rotating magnetic element. Quite a clever scheme is where a dynamo is driven at a constant speed. The currents to be amplified are generated in the armature. All these amplifiers are impracticable for ordinary use but show that considerable ingenuity was displayed to develop one before the advent of the present tube amplifier.

After the sound waves have been transformed into electric currents and suitably amplified, the different methods of making records diverge. The wax record will be considered first.

The Wax Record

It is well known that there are two different kinds of grooves used in wax recording. One is the Edison or hill-and-dale groove in which the width of the groove is constant and of uniform curvature but the depth varies. The other is where the depth is constant, but the center line of the groove describes a sinuous curve which is the record. In the Edison record, it is customary in reproducing to have a screw feed the reproducer across the record since the side pressure of the needle on the inside wall of the groove appears to prevent proper operation of the needle. In the sinuous groove record, friction is relied upon to feed the reproducer across, the rapid vibration of the needle back and forth apparently preventing excessive wear on the inside wall of the groove. In both kinds of records, a screw feeds the recorder across. Thus it will be obvious that in the sinuous groove record, there is a distinct limit to the amplitude since if the recording needle vibrates too great a distance from the center, the separating wall between two tracks may be destroyed. In the Edison record groove, that problem is not present. However in that record, as the stylus digs deeper into the wax, it has to do much more work and thus distortion due to non-uniformity of load may be present. By making the recorder very powerful, this type of distortion may be eliminated. During the cutting of the record, the wax composition must be kept at a certain predetermined temperature and viscosity. The nature of these compositions as well as the conditions for proper recording are generally secret and are the result of long experience and experimentation. In the sinuous groove record, it is important that a predetermined maximum of current be set so that no groove will be ruined because of the lack of intervening wall. Ordinarily a person listens in on a head set or loud speaker or watches a meter and controls the maximum current by some sort of a resistance device. But things are apt to slip up and a defective record may be made. Thus the Victor record No. 6648-B "Pomp and Circumstance" made by the Chicago Symphony has one spot where the grand organ is recorded in the lower registers and the amplitude is so great there that the walls are very thin. The result is that after a few times of playing, the needle breaks down the wall and skips a whole track. A British patent No. 269,978 discloses a recorder whereby such a mishap is impossible, if the recorder is adjusted. It depends upon the differential action of one field superposed on another. Thus an increasing subtractive component brings the effective magnetic pull up to a certain predetermined maximum and any currents greater than desired have no effect at all, being registered merely as the maximum permissible.

There are a great variety of reproducers and in general it may be stated that any transmitter will work by changing the structure so that a needle vibrates the current controlling or generating means rather than having an ordinary diaphragm do it. The reproducers, as a rule, are highly damped with rubber cushions so as not to have any resonance distortion. Many patents show very light reproducers for the fine groove records.

In reproducing from wax records, considerable annoyance is caused by so-called "scratch". Much of it is due to dust in the grooves but some of it seems to have been put in the record during recording. Considerable effort has been made to get rid of it. A common way is to put in an electric condenser across the electrical reproducer so that all vibrations of 5000 cycles per second and above are not heard. The theory is that the "scratch" occupies that frequency range and by getting rid of these frequencies, reproduction is improved. Of course some of the record itself is lost that way but the net result is an improvement. *(To be continued.)*

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INTERNATIONAL PHOTOGRAPHER

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The INTERNATIONAL PHOTOGRAPHER

Official Bulletin of the International Photographers of the Motion Picture Industries, Local No. 659, of the International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators of the United States and Canada.

Affiliated with Los Angeles Amusement Federation, California State Theatrical Federation, California State Federation of Labor, American Federation of Labor, and Federated Voters of the Los Angeles Amusement Organizations.

Vol. 1 — HOLLYWOOD, CALIFORNIA, NOVEMBER, 1929 — No. 10

"Capital is the fruit of labor, and could not exist if labor had not first existed. Labor, therefore, deserves much the higher consideration."—Abraham Lincoln.

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The International Photographer published monthly by Local No. 659, I. A. T. S. E. and M. P. M. O. of the United States and Canada

Howard E. Hurd, *Publisher's Agent*

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Entered as third class matter February 13, 1929, at the Post Office at Los Angeles, California, under the provisions of Section 435½ Postal Laws and Regulations. Permit No. 1997

Subscription Rates—United States and Canada, $2.00 per year. Single copies, 25 cents

Office of publication, 1605 North Cahuenga Avenue, Hollywood, California. HEmpstead 1128

The members of this Local, together with those of our sister Locals, No. 644 in New York, No. 666 in Chicago, and No. 665 in Toronto, represent the entire personnel of photographers now engaged in professional production of motion pictures in the United States and Canada. This condition renders The International Photographer a voice of an *Entire Craft,* covering a field that reaches from coast to coast across the nation.

Printed in the U. S. A. at Hollywood, California

The Sound Track

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OUR CHAMPION

The intelligent countenance beaming on you from the accompanying photograph is none less than John J. Mescall, champion Motion Picture Golfer of the world and the man who will one day make a name for himself in the United States Amateur Championship. Watch him.



JOHN MESCALL

On September 29, last, Brother Mescall for the second time won the championship gold medal and the championship trophy, a silver cup, in the annual Motion Picture Tournament, his gross being 79 in 1928 and 73 this year. ship trophy, a silver cup, in the annual Motion Picture Tournament, his gross being 79 in 1928 and 73 this year.

Mr. Mescall held the Los Angeles City Championship in 1925 and 1926, and on September 2 last at Del Monte he qualified to play in the United States Amateur Championship.

Also, our prize golfist has held club championships at the California Country Club, Rancho Golf Club and Fox Hill Golf Club.

Local 659 is proud of Mr. Mescall and hopes to see him some day up there with Bobby Jones and the other Brass Collars.



Meet Mr. W. D. Lang, manager of Adjustment and Claims Departments of the International Alliance of Theatrical Stage Employees and Motion Picture Machine Operators, New York City, N. Y. Mr. Lang has been active in organized labor all of his life and was a very close friend of the late Mr. Samuel Gompers, president of the American Federation of Labor. Brother Lang believes in "saying it with lights." He doesn't think much of the rocks, mountains and deserts of the Far West, where the boys of 659 make their home, but put him on Old Broadway and he is in heaven. He is so well known in New York that a letter addressed: "Lang, New York," will reach him.

—o—

LABOR AND VACATIONS

Green, president of the American Federation of Labor, says workingmen ought to take two weeks of winter vacation in a warm and sunny clime. Such an expression sounds less strange than even the idea of an eight-hour day did some years ago. In the years of a day shift and a night shift of twelve hours each, uncomfortable, unsanitary shop conditions and low wages, the word vacation was almost unknown. Today vacations among workmen are common enough, and thousands have the automobiles to go fishing in.—Grove Patterson in *Hollywood News.*

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BORN IN NOVEMBER

Here are the names of the members of Local 659 who were born in November. Thanksgiving Day was originated by their parents giving thanks because they weren't twins. By and large it is a worthy group. People born in November have a penchant for sound pictures, and are in danger of contracting serious cases of variable area if they stay out late nights. Their birthstone is reinforced concrete and their color, scrambled rainbow. As golf players they are first rate steam shovel engineers. Here they are. Read 'em and sleep:

John Arnold, Guy M. Bennett, Frank Bjerring, R. O. Binger, Frank Blackwell, George Bourne, Russell Collings, Martin Cornica, Chas. Crane, Donald Cunliffe, Leland Davis, Harry W. Dawe, Jr., Wm. H. Dietz, Edwin B. DuPar, John Eckert, Farciot Edouart, Jack Epstein, Jerry Fairbanks, Frank Finger, John P. Fulton, Tony Gaudio, Edward Gheller, John Hickson, Allen C. Jones, Fred Kaifer, Harry Kaufman, Irving Lippman, Warren E. Lynch, S. C. Manatt, Mark W. Marlatt, Sidney C. Newburgh, Sol Polito, Bernard B. Ray, Paul Ries, Irving Rosenberg, Gus Schoedsack, Wm. J. Schuck, Jean Smith, Otto Stolberg, Karl Struss, George Trafton, Anthony Ugrin, Harry Underwood, E. L. Wetzel, J. P. Whalen.

—o—

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Synchronizing Record Starts

BY

ARTHUR REEVES, *Local 659*

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During my recent trip to the east I visited many theatre projection rooms. While in New York City, through the courtesy of Mr. P. A. McGuire, of the International Projector Corporation, I visited the projection room of the Paramount theatre, the Roxy theatre and the Capitol Theatre. In each instance I inspected the sound equipment and asked the operator many questions regarding synchronization. I also asked the relative difference between sound-on-film and the disc system and, to my surprise, many operators claim they get better quality of tone reproduction from the disc, but in all cases they say that the sound-on-film is much easier to run and not as much trouble as sound-on-disc. The operators that I questioned regarding the breaks in the film admitted that they do not recall at any time the sound-on-disc film breaking in the middle of the reel. With the sound-on-disc it has been found that the starts are chewed up by the sudden starting of the projection machine at 90 feet per minute and, oftimes, the starting point is chewed up and to place the needle back into synchronization takes time to repair the film.



ARTHUR REEVES

While in Chicago, I was in touch with Brother George Moore of Local 110, operator at the Metropolitan theatre, and with his aid we worked out a method whereby, when the leader of sound-on-disc film is broken off, we can put the needle in the proper synchronizing starting point, notwithstanding.

Now, let us consider the ratio between the record and the speed of the projecting machine. The projector runs 1440 pictures per minute and the record makes 33 and 1/3 revolutions per minute. When the mathematics is worked out we find we have 43.2 frames of picture to one revolution of the record. You will note in Fig. 1 the regular Vitaphone record with the starting mark. Now, in Fig. 2, you will note a regular Vitaphone record with a scale dividing the record into 43 equal parts, beginning at the starting mark. This scale, however, does not interfere with any of the marking of the record. It can be a part of the label, or can be stamped in the matrix when the record is made. You will also note in Fig. 2 a portion of the center label arranged as a scale relating in different footages of starting points.

For example, just suppose we are making a change over from the fourth reel to the fifth reel of the feature production and as we do so the machine chews up a portion of the leader (starting) of reel five. The theatre is darkened and the people are impatiently waiting for reel five to go on. In the past it has been necessary for the operator to take the reel out, measure off the portion of film that has been mutilated and add a portion of equal length, then re-thread the machine and start off from the synchronizing point. But with the scale





Fig. 1



Fig. 2

of the 43 positions upon the record, the operator simply looks at the edge numbers which are on the side of the film and which run consecutively from the beginning of the film, and determines the number of feet destroyed. For example, we will say that in this instance the machine was rethreaded up five feet beyond the starting point.

As we thread the projection machine we determine that we are exactly five feet from the starting mark of the film. We now turn to the record and we note upon the scale printed upon the label that five feet requires one turn and thirty-eight frames. With the turn-table stationary, we place the needle on the starting mark. We turn the record with the needle in the groove one turn and around again to thirty-seven upon the dial. We are now in perfect synchronization with the film and our machine can start.

This can all be accomplished so quickly that the average audience would not have time to get impatient as has been in the past. As I have previously stated, very seldom does the film break in the center of the reel and most times starts and leaders are mutilated, therefore, this will be another step to perfect sound reproduction.

Edge Number

All positive films are numbered along the edge consecutively and these are known to the industry as footage numbers. At every foot a number appears, and these numbers run consecutively to the end of the reel. The Vitaphone subjects have a special numbering of their own; it is very clearly visible and can easily he determined. In the foregoing example where I stated that five feet had been "chewed up" suppose we should have threaded the machine at five feet and three frames. In this case we would just add the three frames to the scale. Instead of the one turn and thirty-seven frames on the scale it would be one turn and forty frames. Therfeore, no matter where we are, it will be simple to place the needle in the proper synchronizing point.

The Footage Scale

Herewith the scale that is printed upon this page. This scheme has been figured out to give accurate synchronizing point. In the foregoing portion of this article I quoted forty-three and two-tenths frames per revolution on the record, therefore, we have divided the record in forty-three equal parts. The two-tenths of a frame is compensated for in this scale. This scale runs up to 25 feet. It is only necessary in cases beyond 25 feet to make an addition of the 25 and whatever portion of the scale will make up the difference.

This method is protected by Edgar J. Clarkson, patent attorney, 905 Victor building, Washington, D. C.

Feet	Turn Disc	Frames
1		16
2		32
3	1	5
4	1	21
5	1	37
6	2	10
7	2	26
8	2	42
9	3	15
10	3	31
11	4	4
12	4	20
13	4	36
14	5	8
15	5	24
16	5	40
17	6	13
18	6	29
19	7	2
20	7	18
21	7	34
22	8	7
23	8	23
24	8	39
25	9	12

The operation is simple. Again I will give it to you. First determine the amount of film that is missing. Thread the machine according to the edge number, then read the scale on this page, placing the needle at the starting point and with the turn-table stationary, turn the record with the needle in the groove the number of turns indicated on the scale and the needle will be in proper synchronization with the record.

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HOllywood 1944

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.....**"Yea, verily, blessed is he who hath INKIES on the set for it shall be quiet: and, blessed too is he who sitteth upon a hot stove for verily I say unto you, he shall surely rise again."**

We discovered just the other day that the reason Solly was so partial to INKIES was because that other Sol (California Sunshine Special) was also silent and made much light with little fuss.

There is bottled clear light in INKIES (guaranteed 100 proof) and like sunlight it's the quiet variety. If you know a director or a camera-man anywhere who is on the verge of biting his mother-in-law, tell him to take a tip from Solly and write to Mole-Richardson. He'll get an earful!

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Mapping Alaska From the Air

Local 659 is proud of its individual members who achieve unusual things and none more than Brother J. M. F. Haase, who bears the distinction of being chief photographer of the United States Navy. Since last spring Brother Haase has been acting as Staff Photographer of the Air Craft Squadron of the Battle Fleet, U. S. N., with base at Juneau, Alaska, from which point all of Southeastern Alaska was mapped from the air, Brother Haase, himself, making the shots. The ac-



No. 1

Grand Pacific Glacier wending its way back and to the left, while Ferris Glacier comes in to the scene from left center; Margerie Glacier in lower left-hand corner. Tarr Inlet in foreground. From where Grand Pacific turns to left, following straight back, will be seen the Melbern Glacier. In distance, dimly on the skyline, may be seen Mt. St. Elias, left; Mt. Alverstone,

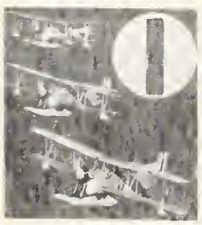


Mt. Hubbard and Mt. Logan. They are only a short distance of 175 miles away which causes the natives up here to remark what a remarkable photograph. Altitude here was about 14,000 feet. The International boundary between Canada and Alaska lies about two miles this side of the face of the Grand Pacific Glacier.

No. 2

Has any of the gang ever climbed

BY J. M. F. HAASE



JUNEAU, ALASKA, September, 1929.

UR work up here has been finished and more than fifty per cent additional has been completed so that by the end of August we had finished mapping the whole of Southeastern Alaska, some 15,000 square miles. The weather was our main bugaboo but on the whole we got the breaks and had some good luck.

We made a flight over and around Mt. Fairweather and recorded some of the most beautful as well as dangerous country for flying one would care to "put in the can." Used the Old Trusty Akeley and was rewarded with some fine shots. Mt. Fairweather is one of the three highest mountains in North America, rising 15,360 feet, the base being that region north of Glacier Bay and is surrounded by nothing but ice, snow and glaciers. In



Wonderful Work of a 659 Man

companying shots sent **The International Photographer** *by Brother Haase are ample proof of the dangerous character of the expedition and the importance of the work accomplished. Nothing like these photographs has hitherto been published. Since writing this letter Brother Haase has returned safely home to San Diego and Local 659 through* **The International Photographer** *heartily congratulates him upon the great success of his mission.*—Editor's Note.

all only about three others have ever flown over the mountain and at that time their cameramen had grief with the camera going haywire at a most inopportune time, therefore, we claim the credit for being the first to photograph







over or up on Mendenhall to get a close up of this great glacier? Oh, no, not we; it is too easy to ease down about 200 feet and get a shot like this that shows all that we want to see without getting too deeply into glacierology (or a coffin).

No. 3

Juneau, Alaska, from 5000 feet, with Mt. Juneau rising to 3500 feet directly behind or rather above the town.

No. 4

Famous Taku Glacier, Taku Inlet, about fifteen miles to the eastward of Juneau and which no doubt many of the gang has seen from shipboard on their way up here. This will give them an idea of where it all originates. Mendenhall, Twin Glaciers, Herbert and Eagle Glaciers all feed from this immense ice field which extends back the Lord only knows how far. We have flown back over it for an hour and a half and still failed to see the other end.

No. 5

Beautiful Mendenhall Glacier, about fifteen miles from Juneau and which also everyone sees that visits this town, but not from this angle.

No. 6

Planes 1-2-4 photographed from Plane No. 3 passing by the Twin Glaciers, Taku River, Alaska.

that terrain from the air. This is considered the most important flight that we have made up here. Other flights, over the Taku Ice Fields, while spectacular and extremely dangerous, are considered mild by us after the Fairweather jaunt. Altogether we have photographed some fifty or more of the glaciers in Southeastern Alaska.

In a recent communication to you I mentioned that I was preparing some



Something new in the line of costumes for a masque ball, but a necessity up here, and further up at 13,000 or 15,000 feet.

photographs to let the gang in on what we were seeing up in this end of the North American continent during our "De Luxe Air Tour of Alaska." To the best of information available up here, a member of Local 659 is the first one to have flown over Mts. Lituya and Fairweather and successfully photographed them both with stills and movies. Hope the gang will get as much kick out of them as I did in getting them.

It is with pleasure that I am able to announce that our mission up here has been completed and we have gone over the top with a bang. From August 1 to 5 we had an exceptional break in the weather and we got in two mapping runs each for the two planes per day, some total of 1600 square miles; or a grand total to date of over 17,000 square miles of territory never flown over by man before.

Our mission up here was the mapping of the Islands of Kuiu, Baranof and Chickagof, some of the mainland in the Icy Straits region and Lynn Canal. This has been completed and more, for all the territory on the mainland north of Wrangell has been successfully mapped and we look for enough good weather while at Ketchikan to complete that part from Wrangell south.

Based here at Juneau, as we have been since the 17th of June, our mapping operations have been carried on some 100 to 200 miles away from the base. In addition to this mapping for the Department of the Interior we had some 1000 oblique shots to make for the Forest Service to aid them in locating power sites and timber areas.

As I said before I have become more or less (better call it less, 'cause the more of 'em I see the less I think of 'em), a "Glacierologist," having added some twenty-two to the list since last writing. I've seen 'em, now you enjoy them at your convenience and with all the comfort you can drag around you, for they are cold brutes to fly over.

At 13,000 feet over the glaciers in Glacier Bay region it was necessary to wear chamois face masks in addition to heavy fur-lined flying suits. Face and lips are still chapped and sore from the beating of the intense cold, but the photos were worth it.

A word about this mapping to let the boys in on what it's all about. The mapping cameras used are T-2 four lens mapping cameras. The fourth lens and magazine form a separate unit, attached to the back of the camera, but geared to the main camera mechanism so that the shutter operates with the other three and the film is wound giving necessary space between exposures. The three lenses are in line, side by each, and are known as "a," "b" and "c" while the fourth is known as "d."

All shutters, through geared mechanism, are fired simultaneously at the correct interval to give 60 per cent over lap. "A" and "C" lenses are at a 35 degree angle, while "B" shoots directly down; "D" is at a 35 degree angle shooting back along the line of flight and is mostly used as a check or tie in, to identify the country as map is being laid up.

Roll of film for main camera is 380 feet long and at 11,000 feet altitude, at which we have been doing all our work, is good for 400 square miles. The angular spread of "A," "B" and "C" lenses at that altitude gives an area of a little better than five miles laterally and 1.6 miles directionally (line of flight).

Flight lines are laid out on charts four miles apart which allows for a 25 per cent overlap on the sides. The directional overlap is computed by the photographer while in flight as it depends entirely on the speed of the plane over the ground; this, increasing or decreasing as the contour of the country below changes. One minute we will be flying over a flat country at sea level where the exposure intervals run about every 25 seconds, next minute a three or four thousand foot mountain will come up to meet us and cut our interval time down to 15 seconds, and not long ago while flying over some of the mainland back of here it dropped down to 7 seconds between exposures.

This is all calculated from finders that we used which give the travel of an object on the ground across the ground glass between areas marked to give necessary overlap. Cameras are manually operated, film being wound at each exposure. Spirit level must be kept constantly in center, stop watch must be watched and a five-second signal to both navigator and pilot must be given five seconds before exposure so that pilot can keep plane on even keel and navigator can hold a straight course. It's a three-man job and each has his own work to do yet the team must work together. If any one of the three makes a slip it's just too bad. Planes used are Loening Amphibians three place jobs and cruise at mapping altitude about 75 miles per.

Film is developed on specially designed Stineman reels that hold 130 feet of film, film width being 6 inches. A morning's work, two rolls, can be run out in four hours so as to be ready for the afternoon run when they get in so that no one need stay up all night getting the stuff out. After film has been developed it is delivered to a representative of the Department of the Interior, a topographical engineer, Mr. Sargent, who checks it for overlap and for accuracy in the following the flight line as laid down, making such corrections as are necessary to completely cover the area by photographs. That marks the end of the film so far as we are concerned. It is then sent to Washington, D. C., where they transform the negative and get the information for their maps.

The "obliques" (shots such as are being sent) involve a little more graft as it means the holding up, to get the photos, of a camera weighing some 65 pounds against the air blast of John Motor that's got all 550 horses pulling, or rather trying to push, you over. To cover the information desired it is a see-saw sort of flight, first down at two thousand feet; maybe down as low as five hundred feet, then up you go to get the long shot which may require anything from five to fifteen thousand feet as some of these photos

(Concluded on Page 32)



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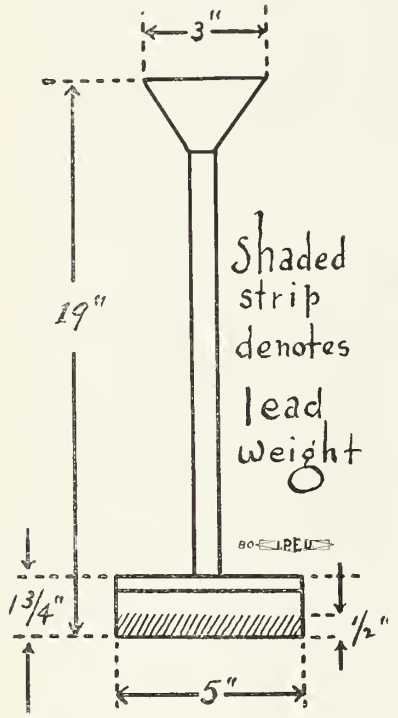
It has brilliance, but with it, the gradation which picks up a long scale of tones. It has speed, but also the fine grain so essential for enlarging. And it has the latitude that permits of variation in exposure without loss of quality—in short, it pairs up with Eastman Cine Panchromatic for uniformly high quality. One trial will make you want more Portrait Panchromatic results.

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FOR PROJECTIONISTS

Brother H. E. Perkins, projectionist, West Coast Theatre, Fresno, Calif., writes as follows to Brother James Palmer:

I have an idea which may prove of interest to projectionists. This is a receptacle for used needles when employing disc reproduction and consists of a weighted base and a shaft to hold a funnel directly beneath the reproducer to catch the discarded needles.



This was constructed of the following parts and in the following manner:

For the base I used a five-inch discarded film can and weighted it with about a half inch of lead in the bottom of the can. To the top of the can was soldered a length of ⅜-inch copper tubing, and to the top of this piece of tubing a small, 3-inch funnel, which can be procured at a five and ten cent store. The total length of the assembly is such that the top of the funnel is about three inches below the reproducer, when the can is set on the floor. These have proved to be very practical. As the discarded needles are taken out of the reproducer they are dropped into the funnel through the tube and into the can where several hundred can be collected before the cans are emptied, thus keeping the discarded needles from being mixed with the unused ones.

———o———

The Mitchell Camera Co. announces a new convenience for the cameraman. It is a contractable magazine spool.

In these days of leather and fabric bitts the take up roll is usually wound tightly and as the rolls are now of 1,000 foot length it presents a vexatious problem to remove the spool from the film without damaging the film more or less. With the new spool this trouble is overcome. The circumference is made of spring steel and a hinged key forces this open, increasing the diameter slightly, when the spool is pressed on the magazine spindle. This action also locks the end of the film securely which has been inserted in the slot. Upon removing the spool from the magazine it contracts and may easily be removed from the film.

———o———

The M-G-M Studio Flying Club held a "dead stick landing" contest, Sunday, September 22. S. C. (Jimmy) Manatt won the contest and the prize, a silver cup.



A scene from "The Greene Murder Case," a Paramount Production

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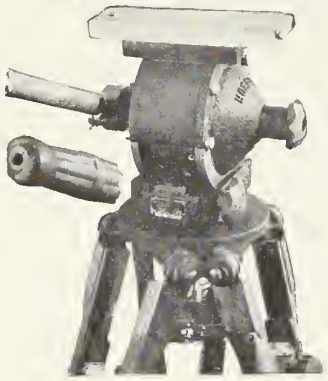
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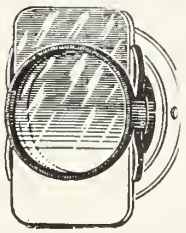
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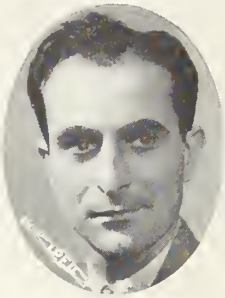
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OUR NEW DIRECTOR

An interesting history lies hidden behind the recent appointment of Philip Tannura to director of sound pictures at the Eastern Sound Studios of Pathe in New York.



PHILIP TANNURA

The mere appointment of a new director, the additional fact that he is a feature first cameraman and an expert in sound lighting and finally his promotion from the ranks by Robert T. Kane, director of Eastern Production for Pathe, not so unusual, but several entirely different angles in his background combine to make Tannura's elevation stand out.

The curious side of his record reveals that it took him more than twenty years through cinema by-paths to reach directorial ranks, after a beginning as an extra with Edison pictures in 1907.

His experience during that time took him through the playing of small bits with such old-time Edison stars as Mary Fuller, Marc MacDermott, Mabel Trunell, Shirley Mason and Viola Dana; on through the developing and printing rooms in the Edison Laboratories, from where he advanced to still photography work.

Tannura in those days created records for unique lighting, composition and general still photographic technique. Later he went into shooting single-reel trick pictures, which was followed by his appointment as chief cameraman for feature production.

Following his photographing of "The Unbeliever," directed by Alan Crosland for Edison, Tannura enlisted in the U. S. Signal Corps Division and saw twenty-two months' service in Siberia, Philippine Islands, Russia, Mongolia and Japan, during the World War. When the war ended Tannura joined a photographic expedition to the South American jungles of Brazil.

Coming to Hollywood some seven years ago, he was made chief cameraman with the Charles Ray Productions and when that company dissolved, he went over to FBO pictures and shot some eighty-six productions for that organization.

In 1929 he went East for Pathe as chief cameraman in New York, where he photographed the recent Morton Downey features, "Mother's Boy" and "Lucky in Love."

His excellent lighting, recording and photographic work made him invaluable in the new show world, resulting in his appointment by Kane. Tannura has been assigned to produce the remaining short product on this year's schedule and has already completed the direction of eight two-reel comedies for Pathe.

LANDRIGAN DRAWS ANOTHER

John S. Landrigan is the author of the striking front page display of the Rotogravure Section of the Los Angeles Sunday Times for October 13, 1929. The photographs were dramatic sequences of the new Paramount super-feature "The Vagabond King," all stills on which were made by Brother Landrigan.



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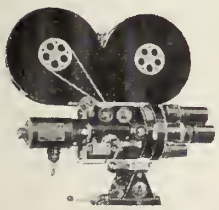
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The Electrical Recording and Reproduction of Sound—Part II.

BY

ROBERT L. KAHN

An authoritative survey of the totality of the art on Electrical Sound Recording and Reproductive Inventions as set forth by Mr. Robert L. Kahn, until recently examiner in these departments of the U. S. Patent Office, and as published in the Journal of the Patent Office Society, Washington, D. C. Reproduced by special permission of the Journal of the Patent Office Society, Sept., 1929.—Editor's Note.

Inventors are now attacking the problem at the source. Thus in patents 1,145,554 and 1,604,344 two different inventors have disclosed the idea of vibrating the recording stylus at a superaudible frequency of about 50,000 cycles per second while recording. Thus there will be two components to the record groove, the superaudible and audible. In the case of the fine groove record, it is claimed that "scratch" is absent in reproducing due to the very low energy level at which reproduction is carried out.

The Photographic Record

The second class of record is the photographic record. In this case a traveling film is exposed to a light, the intensity or amount of which is acoustically controlled. The resulting record may be either of a constant width and varying opacity or may be of variable width and constant opacity. This class of records can hardly be considered without some reference to patent 1,203,190 to Fritts. This patent is the most remarkable one issued by the U. S. Patent Office in at least one respect—the length of time it was pending. The application was filed in 1880 and issued as a patent in 1916, having been pending a little over thirty-six years. Even then, divisional patents issued a year later. At one time, the applicant demanded claims which would have dominated the moving picture camera art long after the basic patents had expired. At present this patent dominates all systems where a sound record is produced by photographic means on a sensitive film.

The Fritts patent shows an acoustically vibrated shutter to control the amount of light reaching the sensitive surface of a moving film. The sound record obtained after development and fixation of the film may be duplicated by the ordinary processes of photographic printing. To reproduce the record, the film is run at a constant speed past a slit, through which a beam of light is passing. As the film passes the slit, the intensity of the light passing through the film will be varied in accordance with the record thereon. This acoustically modulated light falls on a selenium cell. The element selenium as well as certain compounds containing it has the peculiar property that its electrical resistance is reduced upon illumination. This change is proportional to the quantity of light falling on it, within certain limits. Thus the cell in this system plays exactly the same part that a microphone plays in an ordinary telephone system. Instead of sound waves being changed into electrical currents, it is light waves or really variations in light that result in variations of currents through it. These currents are then led to a loudspeaking device and thus the original sound is reproduced. Many systems were devised in which selenium played this role of a light cell. Some had different light controls. One had an electric arc fed by a steady source of current. The telephone currents were then superimposed on this steady current. If the steady current and the superimposed telephone current were in the same direction, they added and the arc was intensified. If the two currents opposed each other, the brilliancy of the arc was decreased. The same thing was applied to electric lamps with filaments. The chief difficulty with all these methods of control is that very rapid variations in light can not be obtained. The shutter controlled method is open to the objection of mechanical distortion due to resonance. The same applies to vibrating mirrors. One patent shows a mirror tensioned on wires and submerged in a transparent oil. This oil exerts a uniform damping load at all frequencies.

It will be seen that there are two broad ways of obtaining a variable light. One way is to go to the source and affect the amount of light actually made. The other way is to have a constant source and control the intensity by cutting the undesired light off. Both methods have been brought to a very high state of perfection.

It is only recently that lamps have been developed that can be controlled so that their intensity may be varied as rapidly as desired. The trouble with the talking arc was that it was unstable. As a rule the energy required to feed the arc was very great compared to the energy superimposed upon it to vary it. This made for little regulation and the result was that there was a considerable undesirable variation in light emitted above that which was supposed to be. In the case of the lamp, the filaments are material bodies and have a definite heat capacity. Hence they are entirely too sluggish. Lamps have been developed now that will follow the changes in current practically instantaneously and the changes in light intensity may approach the radio frequency range. Such lamps emit a glow or electrical discharge as a rule. They are generally small flat electrodes with two edges opposite each other and a gap of a sixteenth of an inch or less, in an atmosphere of hydrogen, helium argon or other so-called rare gases at a very low pressure. The voltage required to actuate one of these lamps is generally below a thousand, some of them being operated at a few hundred. Generally a battery furnishes a steady supply to keep the lamp at a certain intensity and then the telephone currents are superimposed to vary the glow. A recent patent dispenses with the usual glass envelope and places the electrode right up against the film. In this manner, the necessity for a light slit is eliminated. The important thing about these lamps is that the glow is produced because of the ionization of the intervening medium. Very little heat is produced. Furthermore the light is of that quality which very powerfully affects photographic solutions. The result is that any variation in electric current may be changed into a variation in light intensity, no matter how fast the variation may be. The mercury lamp has also been applied to this and French patent 574,515 shows a circuit including a mercury lamp in which instantaneous variations of light intensity may be obtained.

The greatest variety of methods is in the other broad way where a constant source of light is used and the amount of light is varied by intervening means. The very earliest method was by means of Nicol prisms. If a beam of light is passed through a specially prepared piece of tourmaline or Iceland spar, the beam emerging is said to be polarized. Where before the light reached the prism, the light waves were vibrating in all planes and were in a sort of a jumble, the prism tends to keep back all but those waves in one plane. The prism acts just like a bit of a fence with regular spaces in a vertical direction for example. Now if a ball comes bouncing along vertically, it has a good chance of getting through but if it comes rolling and strikes an object at one side so that the ball is traveling in a part of a wave that lies flat on the ground, there is little chance to get through. The same happens with the light. Those waves which lie in a certain plane, depending on the position of the prism, will get through, the remainder are cut off. As the prism is turned on its axis, the plane of transmission is changed. Now if a second prism made of the same material as the first is placed so that the emerging light from the first prism strikes the second prism, then that light may get through or not depending upon whether the two planes of the two prisms coincide. The reason any light gets by the first prism, is because the light falling on it is jumbled up and has waves lying in all planes. But the light from the first prism, after passing through it, is no longer jumbled. Just certain waves have been passed. Thus it can be seen that by turning the second prism, it is possible to transmit all the light or cut off all the light coming to the second prism. The reason the second prism can cut off all the light is because its supply of light is not jumbled but has waves only in one plane. If this plane and the plane of the crystal coincide, transmission takes place, if not extinction. Now imagine that the two prisms are so placed that the second prism's plane coincides with the first prism's plane and the light from the first prism is passed through by the second. Leaving the prisms that way, it is clear that if the beam of light itself between

the prisms can be rotated so that the plane of the light waves is changed, the second prism will not pass the light now because the light waves are in the wrong plane. A magnetic field or the electrostatic field between the plates of a condenser have this peculiar property of rotating the plane of polarization. Now if telephone currents are used to vary the magnetic field, the plane of polarization of the light is varied, the intensity of the light is varied and thus the desired acoustic control over the light is secured. Furthermore it is to be noticed that there are absolutely no moving mechanical parts. The trouble with the magnetic field control is that very powerful fields are necessary and the magnetic changes can not be made as rapidly as desired due to the self induction of the magnetic field. It is like a very heavy weight in mechanics which must be delicately controlled and moved back and forth very rapidly. The very mass of the weight tends to smooth out the fine impulses. The same things happens with the magnetic field. The electrostatic field has therefore been investigated with what appears to be very promising results. The latest idea is to have a multiplicity of opposing plates as in a condenser and have the whole beam go through all the intervening spaces between the opposing sets of plates. In this way the potential necessary to get results is divided up and a much more delicate control is possible. In actual practice, the light between the two prisms usually goes through a liquid like nitrobenzene or a quartz crystal or the like. The reason is that if air is used the angle of rotation from a full light to full darkness is very small. These substances seem to increase this circular angle and allow a much finer control.

Another method uses cathod rays instead of light. Under certain conditions, a peculiar ray known as the cathod ray can be generated. This is somewhat of the same nature as the X-Rays. These rays affect photographic salts. A constant source of these rays is allowed to direct a stream on to a slit, behind which a moving film is passing. These rays have the property of being deflected or bent out of their path by magnetic fields or electrostatic fields. By acoustically controlling such a field, as above with the polarized light, these rays are deflected more or less from the slit and thus more or less reach the film. This method also avoids the use of mechanically moving parts. Any frequencies at all may be made optically visible. It is customary to use these methods when a record is desired of the wave shape of the current in a radio frequency circuit, or where a spark flashes. In these cases, the frequencies run up into the millions per second. Any method which depended upon the displacement of a mechanical element would never be able to register such enormously high frequencies.

Light Slit for Photographic Film

The use of a light slit before the film has been mentioned as necessary in all these methods. The problem of devising one is not as simple as would appear at first glance. For one thing it is obvious that if an ordinary sized slit is used, say one-sixteenth of an inch in the direction of the film travel, and a frequency of five thousand cycles per second were to be recorded as a maximum, unless the parts of the record would overlap, the film would have to run at an enormous speed so that the entire wave would be recorded on a definite length of the film, the record showing how the wave rose to its maximum and then dropped. Thus it will be seen that there is a relation between the speed of the film and the size of the slit used to record clearly any one frequency. The maximum frequency which it is desired to clearly record will determine the relation. The higher this maximum is chosen the better the record will be. As a matter of fact, the speed of the film is fixed. Most of the work on this art was with a view to having the record of speech accompany the movements of the actor in moving pictures. The record was to be placed on the edge of the moving picture film. The record width as a rule is about one-tenth of an inch. To make a good record, the slit has to be not more than two or three-thousandths of an inch in the direction of the film travel. Furthermore the slit must be very close to the film so that the light does not spread. An ordinary hole of this dimensions would fill up with dirt almost immediately. Furthermore the side walls of the slit have to be true and straight since otherwise the quality of the record will be affected. There are many varieties of slits patented. One has the hole filled with some transparent material like glass or quartz. Another one has a glass plate with a thin silver film, the slit being carefully scratched out, and covered over with a cover glass. One slit utilizes the internal reflections of quartz. In this one, a rectangular block of quartz tapers down to an edge which has the dimensions of the slit desired. As is well known, any light thrown on the quartz side opposite the sharp edge will be brought to a sharp beam. The light remains inside of the quartz block. It is just exactly like getting a blast of air from a pipe that has been squeezed to a sharp edge. Others have attacked the problem in a different way and have avoided the necessity of having a slit of very small dimensions. By means of lens systems, the beam has been enlarged and then a large slit used. Since the slit merely fractionates the beam of light, it is obvious that if the beam is enlarged, the slit may be enlarged and thus the proportion be kept constant. Others have a large slit and use the optical image of the slit to define the exposed part of the film. The same problem arises in the reproduction of sound from these records and it has been met in the same way.

When reproducing a film record, a constant source of light shines on the film and a slit allows only a small band to issue and affect some sort of a light cell. As was stated, Fritts and many other early inventors used selenium as their light cell materials. The trouble with this substance is that the changes in the resistance of the material do not occur instantly and there seems to be an appreciable time lag. The cell will not follow the rapid changes in light and the result is that the tones are blurred. Until recently, the lack of a fast light cell has held up the development of this class of sound recording and reproduction. Within the last few years however, a cell has been developed, the current output of which will follow the light variations instantly. No matter how fast the light varies, the current delivered by the cell will vary right in step. It will be noticed that by means of the electrostatic control of a polarized beam, extremely fast variations of electricity may be converted into equally fast variations of light intesnity and that by means of the photo-electric cell the reverse can be accomplished. The only serious drawback to the use of the photo-electric cell is the fact that its current output is very small —infinitesimally so. The changes can only be detected when amplified many times by vacuum tubes. The changes in current in an ordinary photo-electric cell are so delicate that it taxes the sensitivity of a vacuum tube to amplify them. The photo-electric cell is composed of a glass container from which the air has been highly exhausted and into which some rare gas may be put, a loop of wire in the center of the space, which forms one electrode and a metal or compound deposited on the glass, which forms the other electrode. The metal or compound generally used is either metallic sodium or potassium or their hydrides. The cells have to be very carefully made and are very delicate. Their operation depends upon the fact that these metals or compounds named as well as many others have the curious property of emitting electrons or negative electricity when light falls on them. In the ordinary vacuum tube, a stream of electrons is emitted by the filament because it is maintained in a state of incandescence. These compounds do the same thing when light falls on them. Of course the emission in one case is far greater than in the second case. The emission of the electrons by these light sensitive substances occurs almost instantly when light falls on them. In reproduction of the film record, the acoustically modulated current from the photo-electric cell is enormously amplified and transformed into sound. Not only can visible light be used but the ultra violet or infra-red rays, at each end of the visible band, may be used. Thus one patent shows the use of infra-red rays, the record being right over the picture record. The sound record is invisible to the eye and thus the moving picture projection is not interfered with.

There is a form of distortion in film records that is not present in wax records, at least that need not be present in wax records if not desired. It has been found that the variations in transparency of the sound record is not a true index of the variation in volume. There are really two components to every sound record. One is the variation in frequency, while the other one is the variation in volume. Each may be absolutely independent of the other. De Forest in patent 1,446,246 merely hinted at the remedy by stating that a tone record was possible in addition to the sound record itself. Sacia, No. 1,623,756 discloses a solution to this problem. In recording, two records are made. One record is the frequency record and this is obtained by recording the frequency at one uniform energy level. Thus when the currents are weak, they are amplified up to a certain strength and recorded. If the currents are very strong, they are weakened to the same point. The other record is merely the variation in volume and does not indicate the frequency variation. The process is carried out automatically by vacuum tubes and

their circuits. In reproducing, the record of the frequency variations is reproduced into current variations. If no more were done though, a deadly monotony would result as far as volume is concerned. The volume record is reproduced and the current variations are caused to vary the frequency variations and thus the true record is reproduced.

THE TELEGRAPHONE OR MAGNETIC RECORD

The next and last class of sound recording and reproduction is the so-called Poulsen telegraphone. It has been found that if a steel wire is allowed to go by the poles of an electro-magnet, which is energized by telephone currents of sufficient strength, that the resulting acoustically varied magnetic field permanently magnetizes the wire locally. As each particle of the wire passes through the field, it has permanently acquired a magnetization which depends upon how strong the field was at that particular instant. Thus as the field strength in the electro-magnetic cores varies in accordance with the original sound waves, so does the permanent magnetic strength of the wire vary. Contrary to expectations, the wire does not exhibit the slightest tendency toward coming to a uniform magnetic equilibrium. Each little particle of wire maintains the strength of its own magnetic field without any apparent disturbance from its neighbors. The wire record may be kept indefinitely on a spool. To reproduce it, the wire is allowed to pass between the poles of an electro-magnet, which is not energized by any source of current. The wire passing the pole causes the windings of the pole to cut the lines of force of the magnetic field of the wire and in accordance with well known laws a certain electromotive force is generated which forces a certain current through the circuit, if there is a closed one. This current is generally amplified and translated into the original sound waves. The same apparatus can be used for recording or reproducing, according to whether the electro-magnets are energized for recording or used merely for the generation of potentials in reproducing. To erase the record, all that is necessary is to pass the wire between the poles of an electro-magnet energized either by alternating current or by a very strong steady direct current. In the first case, the field of each particle of the wire record is destroyed. In the second case the fields are brought up to a uniform unvarying strength, a sort of a new zero line, from which a new record may begin. There is no limit to the number of times a record may be reproduced and there is no limit to the number of records which may be put on a wire. Generally the apparatus is simplified so that there are only two sets of electro-magnets with suitable switching means. When reproducing, only one of the magnets is used. When a record is to be made, two magnets are used. The first magnet is energized so as to erase any record that may be on the wire. Then the wire passes under the influence of the second magnet which impresses the record. The two operations are carried on while the wire is being unwound from one spool to the other and while they are strictly not simultaneous, as far as actual manipulation or effort is concerned, they may be considered to be so. The steel wire is not the only form of record material that can be used. A steel disc or cylinder is often used. In that case, the record follows the same kind of a line that a sound record groove does on the correspondingly shaped wax record. Steel ribbon has also been used. A wax record base with steel filings uniformly distributed has also been used. One patent discloses such a record made in the form of a long ribbon, very much like a moving picture film and intended for work in connection with moving pictures. It is very strange that this system of sound recording and reproduction has not been put to more use than it has. It is simple, reliable, cheap and convenient. Furthermore the patent situation is not favorable to any one person or group, the fundamentals being quite old.

SOME OTHER METHODS

In addition to the three classes of sound recording and reproducing, which have been described, there are several other methods that are very interesting merely for their ingenuity if nothing else.

The patent to Kitsee No. 903,199 discloses an acoustically vibrated fine tipped pipe from which some insulating liquid is sprayed out on a disc record of conducting material in a spiral. As the insulating material dries, a sound record track is left by it. The disc is then subjected to electrolytic action or may be etched

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out. Bone, No. 1,580,112 shows a film sound record in which the record part is of constant density but varying width and the record proper comprises some conducting substance like a metallic ink, instead of the usual photographic silver. The reproduction is carried out by making the entire film with its conducting record one pole of a condenser while a small metal plate right over the surface of the film and past which the film is rolled, forms the other pole. As various parts of the record come opposite the small metal plate, a condenser of various capacities is formed. The changes in capacity act on a vacuum tube amplifier and the record is reproduced. The record part of the film has also been made of an insulating substance and forms the dielectric element of a condenser of two plates, one on each side of the film in about the same manner as above. A very curious way of reproducing ordinary film records is to have the film run past a spark gap. On the other side of the film is a source of ionizing rays like X-Rays, ultra-violet rays or the like. As the film goes by, the band of ionizing rays goes through the film and is altered by the sound record, much like a beam of light. This beam of ionizing rays has the property of changing the sparking potential of a spark gap. The result is that sparks of varying intensity and potential will jump the gap, due to the changes in the ionizing rays. These varying potentials across the spark gap are supposed to operate a telephone receiver. Another equally curious method of reproduction of the same kind of a record is to allow the record to be run between the poles of adjacent electro-magnets. One electro-magnet forms part of an oscillating circuit, that is a circuit where alternating currents surge back and forth. The record alters the mutual induction of the two electro-magnets and the sound is reproduced in the second electro-magnet. Since the record is formed of metallic silver, this is possible.

There are several other curious methods of recording and reproducing in which the record body is different than the common ones described above. The French patent 607,156 shows a strip of paper rolled between two wires. Talking currents cause sparks of various strengths to jump through the paper strip, from one wire to the other. The record is formed of a series of different sized holes burned in the paper. To reproduce, the paper is rolled between two wires which press on each side of the paper. When there is a hole in the paper, the wires touch and a contact through a telephone receiver is established. The patent to Reynolds No. 287,166 shows a record cut on the sharp edge of a triangularly or rectangularly shaped wire. The reproduction is affected by having a finger ride on the edge and operate a microphone. Patent 1,350,246 shows a thread used in about the same manner, the thread being compressed variably. Probably the two most extraordinary methods of recording and reproducing sound are shown by Fuller 934,600 and British patent 145,804. Both use wires. Fuller passes his wire through an electroplating solution. The wire is protected from the solution by two insulated tubes except at one point. Talking currents are caused to actuate a mirror which changes the resistance of a selenium cell in accordance with sound waves. The direct but varying currents through the selenium cell are led to the electroplating cell. The wire forms one pole and a metal electrode forms another pole. A variable deposit of iron is produced on the wire which is supposed to correspond to the original sound waves. The wire record, as finished, has an irregular cylindrical surface of a varying diameter. To reproduce this record, it is passed between the poles of an electromagnet. The British patent uses even a more remarkable method of obtaining a wire record which probably resembles Fuller's record in shape. In the British patent, the wire is drawn through two separated and insulated chambers filled with a liquid low melting metal. Between the two chambers a draw plate exerts a tension on the wire. A current of electricity goes from one metal bath to the other via the wire and heats the wire to incandescence at the draw plate. Where the wire comes out from the top metal bath, a roller guides the wire to the receiving spool. This roller is acoustically vibrated and tends to exert a varying tension on the wire. The wire being mechanically weakest at the draw plate where it is incandescent, yields there and is elongated to varying degrees depending upon the position of the vibrating roller. The wire is cooled in the metal bath right after passing the draw plate so that the yielding of the wire is localized at the draw plate. The methods of reproduction of this extraordinarily made record are fit companions for the recording method. In one method, the wire is drawn through the same apparatus. The differences in electrical resistance of the wire between the two liquid metal baths varies a current which actuates a telephone receiver. Another method of reproduction is purely mechanical but is interesting. The wire is drawn through a draw plate—the inventor appears to have a decided penchant for draw plates—but this draw plate is made of ebonite or some substance having a slight degree of elasticity. This draw plate serves as a flexible valve for a container of compressed air. As the wire is drawn through, the varying diameters cause a varying amount of leakage of the compressed air and thus the sound is supposed to be reproduced. Whatever else the patent lacks, there is no doubt but that there is considerable novelty in it.

Some Practical Applications

Apparatus for recording and reproducing sound are used for more than merely making records and reproducing them for pleasure. Thus many patents show a recording and reproducing system in conjunction with the telephone set. In case a person is away from his office, the machine will answer the telephone and merely state that the person is out and ask that the caller state his message so that the machine will record. Later when the person comes in again, he can reproduce the recorded message. The telegraphone is peculiarly fitted for such work, inasmuch as both the recording and reproducing operations are very simply carried out and under conditions that are not unusual. There is also a patent in which a record is made of the hours and minutes of the day and a subscriber calling the telephone exchange and asking for correct time, will be switched to this machine which reproduces the correct time for that instant. In certain secret systems for the transmission of speech over telephone systems or by radio, the telegraphone is used to record part of a syllable and reproduce it an instant later while some other syllable is being enunciated, thus making the message unintelligible without special apparatus. Sound recording systems have been developed for the purpose of orienting the location of some sound source. Thus it may be desirable to locate where a certain gun is being fired. Several transmitters are scattered over an area, each transmitter feeding into a sound recorder. By noting the difference in time of arrival of identical sounds at the various transmitters by means of the sound records or graphs, the source of the firing may be determined with more or less accuracy. There is also a curious device disclosed by patent No. 766,225. It is like a typewriter, having keys, each key controlling a sound reproducer which will reproduce some particular speech unit. By pressing one key after another, the machine may be made to say various things.

Within the last few years, sound recording and reproduction has turned a very sharp corner in the direction toward the better. Radio has been a great help in this art and the advance of one will bring the other to a higher plane. There are no revolutionary improvements in recording or reproducing wax records in sight but there is a healthy activity which bodes very well for that branch of the art. A tremendous amount of work is being done in film recording and reproducing in connection with talking movies and while the practical stage of the art needs considerable improvement, these improvements will eventually come, and come soon.

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BY

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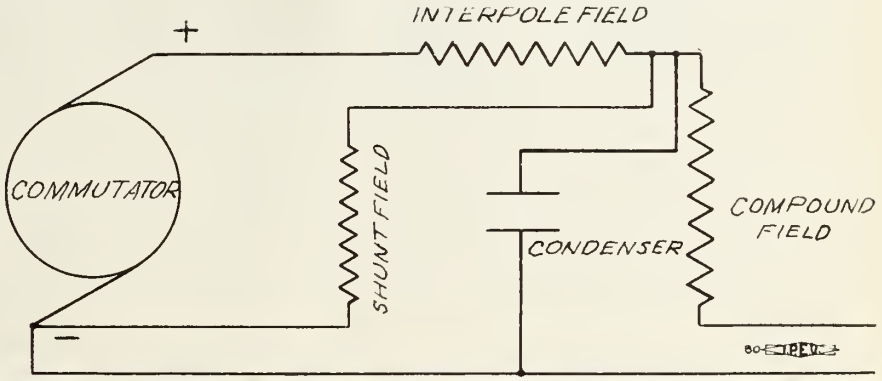
The arrival of sound pictures brought with it many problems for the producers of motion pictures to solve. Arc lights commonly called "hard lighting" as formerly used by the moving picture industry could not be used on sound stages due to the characteristic high pitched humming noises they produce, which was picked up by the microphone.

Some time ago E. F. Scattergood, chief electrical engineer of the city, become familiar with the problems of the picture producers and detailed T. A. Panter, chief of operations, to make available the facilities of the Testing and Research Laboratories of the Department.

After many experiments a successful solution of the problem has finally been found with the result that "hard lighting" can now be used in the production of sound pictures.

The cause of this high pitched humming characteristic of all arc lights originates in the direct current generator which is necessary to supply the current. It is commonly known as "commutator ripple" and is caused by a reversal of voltage in the individual armature coils as they pass under the collector brushes on the commutator. This gives rise to a fluctuating voltage or alternating ripple which is impressed on the fundamental direct current. The frequency of this ripple in the particular machine on which experiments were made is 1800 cycles per second, these rapid pulsations of current induces a very high pitched note, which is amplified by the arc light.

The elimination of this "humming" is accomplished at the source or generator by connecting a very high capacity electrolytic condenser between the common juncture of th eauxiliary and compound field windings and the opposite polarity



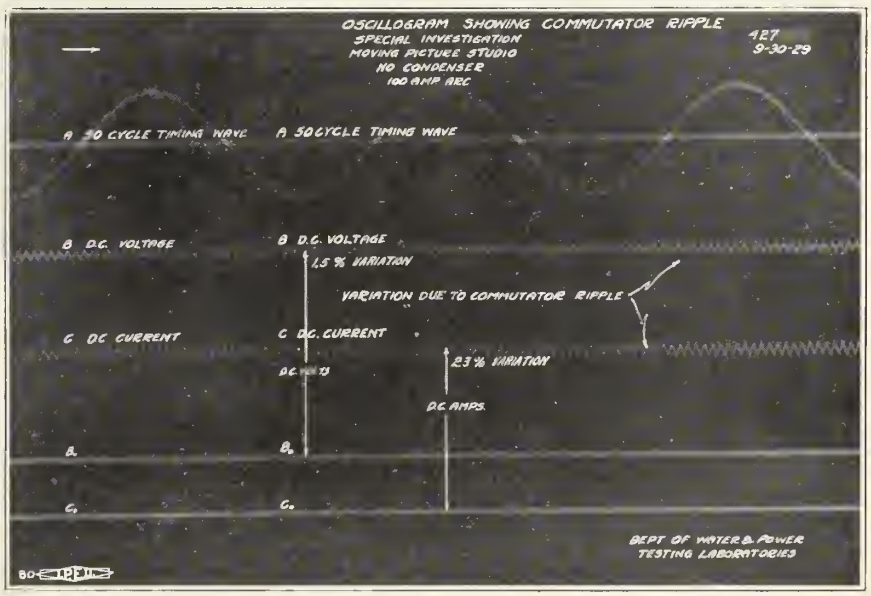


FIGURE 1

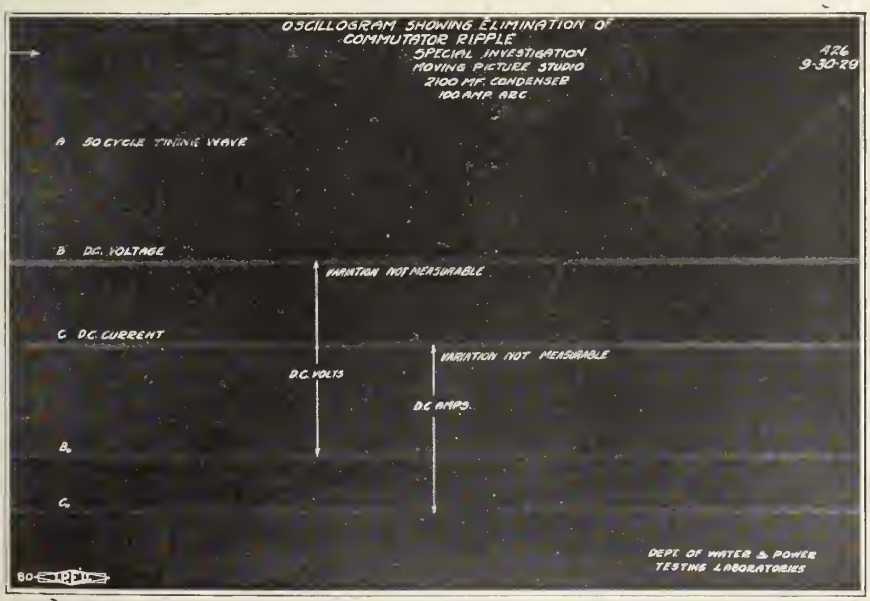


FIGURE 2

of the generator as shown in the sketch, Figure 1.

By this connection the reactance of the compound field is used as a "choke coil" in what is commonly known in radio parlance "as a brute force filter." No ohter reactance coils are required which is a great advantage as these would be expensive and difficult to manufacture, require considerable room and reduce the efficiency of the machine.

The effectiveness with which the commutator ripple is removed can be seen by reference to the Oscillograms Nos. 426-427. Oscillogram No. 426 was taken on November 30, 1929, with the condenser connected as shown on Fig. 1. In this picture there is no measurable variations in the direct current voltage or amperage. Oscillogram No. 427 was taken the same day under the same coditions, except that the condenser was disconnected. In this picture the commutator ripple amounts to 1½ per cent of the total direct current voltage, and the current due to the same cause amounts to 2 3/10ths per cent of the total current.

(Concluded on Page 42)

The Wise Men from The East followed the Star

S. M. P. E. at Toronto

Reported for the International Photographer by Joseph Dubray

Manager Technical Service Department, Bell & Howell

Arrived at Toronto in the morning of Sunday, October 6th. Spent all day looking for our friend Herford Tynes Cowling, who was supposed to have arrived the day before, but who was, in reality, driving leisurely along Canadian roads.

It was only late in the afternoon that I had the pleasure of shaking hands with him and joining L. A. Jones and J. I. Crabtree of Eastman; Coffman, Chairman of the Papers Committee; and the ever present (thank the Lord for it), Dr. Hickman, who were discussing and preparing for the opening of the convention the next day.

That night I joined the Hollywood crowd—Peter Mole, C. H. Buck, F. E. James, Frank Graves and Mr. Silent, of Electric Research. There were hand shakes, slaps on the back and hurrahs for California — "God's Country" — a happy reunion of happy men.

Griffin, of International Projectors, and Denison, of United Artists, were present, and, of course, in a few minutes we had solved all the problems pertaining to wide films projection and set the whole industry aright. We unanimously voted a resolution of thanks to J. R. Cameron for his brilliant invention which insures a perfect flatness of the film at the projector's aperture—a blower system embodying entirely new developments—just two boys with a ten-inch chest expansion needed; one to blow on the flim while the other inhales—patents pending. The Examiner requested a demonstration and a number of husky young men engaged for the job blew themselves out of this world before the demonstration was completed. The problem is solved anyhow—it is merely a matter of refinement.

Remember, now, that this all happaned the evening before the opening of the Convention and that we were in Canada.

The next day the Convention was officially opened by President Porter. His Worship, the Mayor of Toronto, Samuel McBride, Esq. told us all about Toronto in an inspired address of welcome, and the reading of officers' and committees' reports opened the session.

Papers followed in rapid succession with little variance from the scheduled program.

One of the outstanding features of Tuesday, October 7, was the address of William F. Canavan, president of the I. A. T. S. E. and M. P. M. O., of the United States and Canada. He urged that the interest of small theatres be given consideration in the deliberations of the S. M. P. E. and praised projectionists as a studious class of men and as one of the most important elements in the motion picture industry.

The evening closed with the showing of the all-talkie, "The Lady's Lie," a comedy, followed by a buffet luncheon during which good old friendships were recemented. Informal technical discussions were the order of the evening.

A heavy program was scheduled for the second day. The whole of the afternoon session was devoted to papers on wide films. A very interesting survey of the early history of motion pictures cameras for films wider than 35 mm. was read by Carl Gregory; an extremely interesting paper on rectangle proportions in pictorial composition was presented by the inexhaustible, L. A. Jones and very favorably commented upon. A paper on the optical problems of the wide film was read by Dr. Rayton, of Bausch & Lomb, and, finally, the writer was called to tell about Mr. A. S. Howell's and his own ideas on some practical aspects of and recommendations upon wide films standards.

All these papers were received with intense interest and it was obvious throughout the Convention that this question of large area films is the one which awakens the most immediate interest in the whole industry.

The afternoon was devoted to the reading of a number of papers of varied interest, a most noteworthy one presenting a synchronous apparatus for 16 mm, film with disc records, by Mr. Wm. Bristol; a remarkable study on the photographic characteristics of sound recording films by L. A. Jones and Otto Sandvik, and a paper by Dr. Philemon E. Truesdale, on "Sound Films for Surgical Instruction." This paper was followed by the showing of a picture prepared by Dr. Truesdale, with the co-operation of the Carpenter-Gildman Laboratories, in which the Doctor explained, via talkies, the causes, effects and remedies of a diaphragmatic hernia, while the different phases of the subject were illustrated on the screen by both animated diagrams and actual view of the health-restoring operation. A truly remarkable exhibition, proving the potentialities of the screen in the scientific field.

Other papers were presented by members of the Eastman Kodak Company on the chemistry of processing, and one by M. W. Palmer, of the Paramount Organization, demonstrated a film numbering device for cameras and recorders. This was a thoroughly enjoyable day during which much was accomplished and discussed.

Dined with Mr. Farnham of Nela Park, Cleveland, and his charming wife, together with Mr. W. A. Tinson, G. E. representative at Johannesburg, South Africa. While enjoying an excellent meal and good music, we traveled all through the Dark Continent, forgetting motion pictures, reminiscent only of old travels and thrills.

On Wednesday, October 9th, we devoted the entire morning session to sound recording problems and the presentation by Mr. L. A. Jones of the report of the Standardization Committee.

The election results were read and President-elect Crabtree received the hearty congratulations of all present.

Officers for the ensuing year were elected as follows: President, J. I. Crabtree; first vice-president, Dr. Kenneth Hickman; second vice-president, Henry P. Gage; secretary, R. S. Burnap; treasurer, W. C. Hubbard; to the board of governors, Herford Tynes Cowling, W. C. Kunzman, McKenzie, E. T. Sponable.

The afternoon was devoted to a sightseeing tour around Toronto, and in the evening we all congregated in the Convention hall of the Royal York Hotel for the banquet.

Dr. Hickman acted as master of ceremonies, and after toasting His Majesty, the King, and the President of the United States, Canon, the Hon. H. J. Cody, Chairman of the Board of Governors of the University of Toronto, in an inspired speech made all of us feel more proud, more conscious (if possible), of the educational value of motion pictures.

President Porter and President-elect Crabtree told us about the past and future aims of the Society, and they were heartily applauded.

The entertainment which followed the banquet, and which was provided through the courtesy of Famous Players Canadian Corporation, and under the direction of Jack Arthur, was exceptionally interesting and proved conclusively that Hollywood has not as yet attracted ALL the beauty which is to be found in the world.

A dance followed the entertainment and was prolonged until the early hours. It would be impossible to name all those present as we should find it necessary to mention the entire list of the membership attending the Convention, their wives and sweethearts.

Business was not entirely forgotten, however, and many technical words would reach the ear of a passer-by mingled with the strains of the dance music.

The following day, the last of the Convention, was devoted to the reading of papers on lighting systems and light characteristics, the most notable being a paper by Frank Benford, one by A. C. Downes, and one by New T. Gordon on "Water Cooling for Incandescent Lamps."

Papers from non-present members were read and the Convention closed after an interesting sound demonstration by C. H. Buck, of Hollywood.

One of the most interesting announcements made during the Convention was that of the decision taken by the Board of Directors to issue a monthly journal in replacement of the present publication of the Transactions of the Society.

The importance of this decision cannot escape any one interested in motion picture engineering and technique.

It will bring the communications of the Society to the industry much more

Autumn Convention of Society of Moti



Top strip — Convention Membership and Guests.

No. 3 frame, L. A. Group —Hal Hall, Ed. A. S. C.; Frank Graves, Chf. Eng., Universal Pic. Corp.; O. K. Buck, L. A. Dept. Water & Power; J. C. Silent, Electrical Research Products Co.; sitting, Jos. Dubray, Bell & Howell: Peter Mole, Mole-Richardson; F. E. James, General Electric Co.

No. 2 frame—I. A. T. S. E. members, U. S. and Canada (all districts).

No. 4 frame—Officers I. A. T. S. E. members of S. M. P. E. Pres. W. F. Canavan, middle, seated.



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icture Engineers, Toronto, Canada, 1929







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Oval 5—Wm. Hubbard, Treasurer. 6—J. I. Crabtree, President. 7—L. C. Porter, Past President. 8—Dr. Hickman, Vice-President. 9—R. S. Burnap Secretary.

No. 10—H. T. Cowling. 11—W. B. Cook. 12—Joe Coffman. 13—F. Banford. 14—L. C. Jones. 15—W. C. Kunzman.

Bottom frame—Board of Governors, S. M. P. E., W. C. Kunzman, H. T. Cowling, J. I. Crabtree, Wm. Hubbard, F. Benford, L. C. Porter, R. S. Burnap, W. B. Cook, Peter Mole.



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John Corydon Hill '29

rapidly than heretofore, and in a more complete manner.

The aims of the Journal Committee are to publish in the Journal all the papers presented to the Society conventions; papers from the Sections of the Society; reprints of papers emanating from other societies and of interest to the motion picture industry, which will include translations of transactions of foreign societies; reviews of technical and scientific books; patent abstracts, etc. A section of the Journal will be devoted to the Society business and another to the presentation of new apparatus.

The Journal will be completely free from all commercial considerations and the funds for its maintenance will be derived from the funds of the society.

After the close of the Convention we cannot but feel that another step towards progress in motion picture technique has been made.

The International Photographer takes this occasion to express its heartiest good wishes to the Society of Motion Picture Engineers, welcome, with open arms the new S. M. P. E. Journal and bespeaks for it a career of vast usefulness and prosperity. It should prove of immense benefit to the industry and to all associated with the production of motion pictures.

THE NEW PRESIDENT

J. I Crabtree, newly elected president of the S. M. P. E., was born March 27, 1891, at Clayton-le-Moors, England. Educated at Victoria University, Manchester, England, 1907-1913. Degrees: B.Sc., honors in chemistry and M.Sc.

Entered the Research Laboratories of the Eastman Kodak Company at Rochester in 1913. He has been in charge of the departments of Photographic Chemistry and Motion Picture Film Developing from 1917 to date.

Member of the American Chemical Society, The Optical Society, The Royal Photographic Society, Fellow of the Institute of Chemistry of Great Britain and Ireland.

Progress medalist of the French Photographic Society, 1926.

Has lectured to scientific societies and amateur photography clubs.

During the war, instructor in the Aerial Photography School at Rochester.

Mr. Crabtree has contributed extensive papers to the scientific photographic literature. These have been published in many countries, and several have been reprinted as handbooks. His fields of research include: Fog and photographic developers; the use of desensitizers; the chemistry of development and fixation; stains, spots and marks on films and papers; the corrosive effect of photograpic apparatus; lithography; flash powders; tinting and toning; tropical processing; silver recovery; and motion picture processing technique. On the latter subject, to which he has devoted most of his attention, Mr. Crabtree is credited with 22 papers.

Mr. Crabtree has held the following positions in the Society of Motion Picture Engineers:

Chairman of the Papers Committee, 1925-28.

Chairman of the Publications Committee, 1926-29.

Chairman of the Progress Committee, 1928-29.

Member of the Board of Governors, 1927-29.

He has made two trips to the coast in recent years.

By CARL LOUIS GREGORY

Excerpts from a paper read at the fall convention of the S. M. P. E., Toronto, Canada, 1929.

It has been claimed that there is only one standard of measurement which is common to all nations of the earth. That measurement is the width of a piece of standard theatrical motion picture film. * * *

That the 35mm. width of film came to be the measurement which survived and eventually became standardized is an interesting story in cinema history that can here be told but briefly. It was not foresight that caused Mr. Edison in this country and Lumiere Freres in France to select film widths that were so nearly the same that they were practically interchangeable.

Edison selected 1 3-8" as the width of film best suited for his Kinetoscope only after a long series of experiments with films in cylinders, discs, and narrow ribbon form run horizontally instead of vertically, because that width of celluloid ribbon worked the best for his penny-in-the-slot peep hole Kinetoscope.

This measurement coincides within 1-100 of an inch with the 35mm. width selected by Lumiere of France, who chose that standard to catch the foreign market for Kinetoscope films. * * *

It is a difficult and almost impossible task to locate chronologically all the different sizes of films. Often the details of perforations and frame size are entirely omitted in the records which have been preserved. * * *

During 1899 there were in England and on the Continent Mutograph films 2¾ inches wide, Demeny Chronophotographe 60mm. wide, SKLADOWSKY FILM 65mm. wide, Prestwich wide film 2 3-8 inches wide, Birtac films 11-16 inch wide, Junior Prestwich ½-inch wide, besides the present standard established by Edison.

It must be remembered that for several years before a motion picture was successfully projected upon a screen there were in existence hundreds of moving picture machines-penny-in-the-slot devices whereby one observer could view a tiny motion picture image thru a peep hole. * * *

The celebrated Black Maria studio of Edison at Orange, New Jersey, turned out scores of these films long before Mr. Edison believed it possible to project a picture that hundreds could view at once.

It was this commercial reservoir of 35mm. films which imposed upon the motion picture industry the limited area and definition of the present standard which has been further reduced to make way for the sound track as it is used today in the sound-on-film systems.

The first public exhibition of projected motion pictures given on Broadway was on wide films!

On May 20, 1895, Latham and Lauste's Eidoloscope projected successfully from film two inches wide pictures of a prize fight between Young Griffo and Battling Barnet at 153 Broadway (p. 134 Terry Ramsaye's work).

It was not until eleven months's afterward that on April 23, 1896, the Vitascope, using substantially the same standard as is used today, was shown at Koster & Bial's on West 34th St.

Wider films failed to survive because other sizes could not meet the ravenous demand for new subjects. Out of the reservoir of peep-hole subjects came a variety of film to meet the demand while producers of new subjects came into action. * * *

Thus in America, England and France peep-hole films were in existence awaiting the advent of a successful projection machine and the sheer quantity of which soon forced the finer quality but higher priced wide films into speedy oblivion. * * *

Probably the first example of motion picture "film" as it is photographed today was a scene taken in the Champs D'Elysees in Paris in 1886 by Dr. E. J. Marey. Although the "film" was paper, sensitised celluloid not being available until a year or two later, and cine projectors having not yet been invented; this paper negative could be printed as a positive film and run as a Gox Grandeur film today. * * *

One of the first to project successfully upon a large sized screen was Mr. Woodville Latham, inventor of the Latham Loop which caused much patent litigation in the early days. Latham called his machine the Eidoloscope and used wide film 2 inches wide with frame ¾-inch high by 1½ inches long, as mentioned in a preceding paragraph. * * *

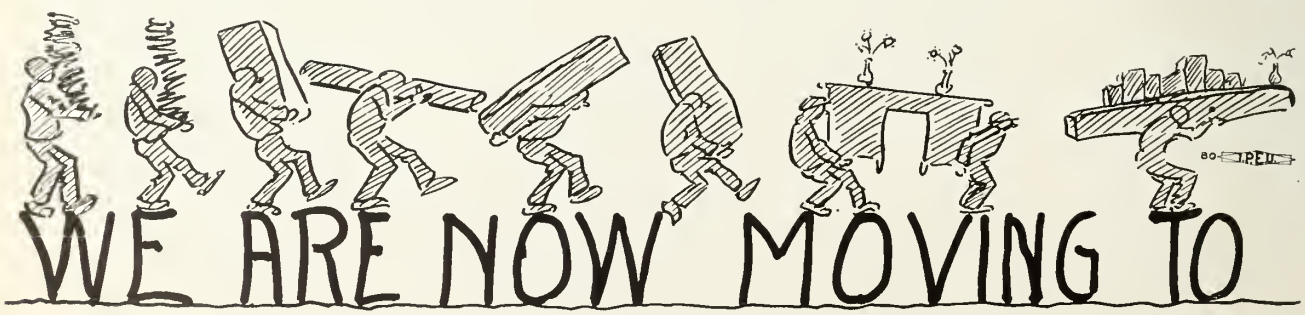
In the late 90's the motion picture was regarded as a great novelty which would soon die out. Conditions were chaotic and everyone who went into the business worked with frantic eagerness to reap the rich harvest before the fickle interest of the public shuold pass on to some new fancy.

Just as there was no standard of film size, no rate of frames per second was established and the taking rate varied from 8 per second to 60 per second among the different systems, each of which was distinguished by some fantastic and polysyllabic name. Out of the hundreds of such coined trade names only a few are remembered today; such as Kinetoscope, Vitagraph, Biograph and Mutoscope.

Subjects were confined almost entirely to news events, prize-fight short scene shots and theatrical or spectacular bits, many of which were considered very risque in those conservative days. * * *

On November 3, 1899, the Jeffries-Sharkey fight was held at Coney Island at night. The film used was 2¾ inches wide and each frame was 2¼ inches high. Three hundred and twenty feet of this wide film was used per minute, the perforations being made in the camera at the instant of taking. * * *

The perforations in the large Biograph film were used in printing but not in projecting. The projector pulled the film down by means of a set of mutilated rub-



ber rollers and the projectionist had to watch the frame continuously to prevent creeping of the frame line on the screen.

Oscar B. Depue, a member of the Society and partner of Burton Holmes, in 1897, purchased a machine in Paris from Leon Gaumont for taking 60mm. wide film then put up in one hundred foot lengths, unwinding and rewinding inside the camera on aluminum spools; not a daylight proposition, but a dark room model. * * *

The Gaumont wide film camera was used for five years by Mr. DePue and most of the negatives, many of which are of great historical value, are still in good condition, so that either full size or standard sized reduction prints can still be made from them.

During the first few years of the new century all of the sizes of wide film died out or changed to the Edison standard and until the present vogue for sound pictures caused a revolution in the cinematographic world, the Edison standard with very slight modificatons seemed to be so well established that nothing could shake its supremacy.

Spoor and Bergren have worked for more than ten years upon a 63mm. film called Natural Vision pictures.

Widescope first sponsored a double frame picture on two standard films with the two pictures blended side by side into a panorama, then a wide film was used with two short focus lenses making one blended frame; after that the Alberini Italian patent was acquired in which a wide film of about 2¼ inches, width is held in cylindrical form about the axis of rotation of a revolving or reciprocating lens so that the succeeding frames are photographed on the same principle as in a panoramic still camera. Unfortunately this method of taking pictures introduces the same curvelinear distortion often noticed in circuit and other panoramic still photographs.

Some of these widescope patents were acquired by Fox and rechistened. Fox Grandeur pictures which are 70mm. in width with a frame 48 by 22.5mm. leaving space available for a sound track about 10mm. wide. Widescope films were exhibited at the Cameo theatre on Broadway as eraly as November 7, 1927, and in Staten Island five years before this.

Lorenzo Del Riccio, a member of the society is perfecting for Paramount the Magnafilm. This film is 56mm. wide and the frames are 19½ mm. high . * * *

Several other sizes of wide film are being used experimentally and other new sizes are being advocated but these are current and not early history and do not properly belong in this chronicle.

Looking back over years since Dr. E. J. Marey, of Paris, made in 1886 the first paper band of negative on the same principle as motion pictures are still made today we can cast our eyes forward over the years to come with a strong conviction that the Society of Motion Picture Engineers will be able to bring the sponsors of these new film sizes together and work out standards which will prevent a repetition of the chaotic conditions which hampered the industry in its early days.

Remarks by
TERRY RAMSAYE, EDITOR-IN-CHIEF FOR PATHE,
At Toronto Meeting of Society of Motion Picture Engineers

A great deal of the equipment now used in the recording of sound pictures is highly unreliable and full of trouble.

The equipment and the machines are, in the main, a great deal more reliable and cause less trouble than the men who run them.

Manpower is frequently the major problem in industry, and it is now acutely the most difficult problem in our industry of the talking motion picture.

This problem is going to be solved, of course. One of the answers is education of personnel through the endeavors of such organizations as the Society of Motion Picture Engineers. Another answer is the selective action on personnel which always operates most conspicuously through the early periods of any industry involving a new technique. The turnover in studio and sound truck employment is likely to be rather rapid in the next year for this reason.

It is time to debunk the sound recording business and take the mystery out of its processes. This Society of Motion Picture Engineers can help importantly in that direction.

In its present status of development sound recording devices appear to need rather frequent attention and a considerable array of routine tests, but it is not unfair to say that its operation requires hardly more attention from the recordist than is necessary for the intelligent tuning of a fairly sensitive radio set. Yet, there is observable, a continual effort to camouflage the work with a great atmosphere of complexity and strange obscurities.

Recently one of the companies with whose activities I am sometimes concerned had a simple task in re-recording a dramatic sound strip for the elimination of some minor faults of the negative.

It is hardly necessary for this audience for me to interpose the statement that the best sound re-recording is now done by direct connection of the recorder with the amplifier serving the sound head, making the operation entirely an electrical operation without audible sound.

Now the alleged technicians on this job insisted on delaying the work for two days and transporting and installing a ponderous belt driven film phonograph, despite the fact that two perfect sound projecting machines were already available in the plant. I had the boldness to protest against the unnecessary delay and expense.

"But," the experts screamed at me, "we projector gears when we re-record." They were so unutterably dense that they did not realize that it takes a microphone to electrically listen to a noise.

Every executive concerned with the making of sound pictures can tell you plenty of stories as bad as that one, and some a great deal worse.

The situation is, however, no more serious in the field of sound than it once was in simple motion picture photography.

As late as 1916, I found laboratory experts running around with mysterious little black books in their pockets, with secret formulas for making various tones on film. These secrets they so carefully guarded as their capital of skill had been published to the world for years by George Eastman. They were well known to any interested person who could read. I have always thought that an introduction to the art of reading would be a great help to the movie industry anyway.

I am inclined to have a little more patience with the present problems on the sound recording operations in the field when I recall experiences with an endeavor to put panchromatic film into studio and newsreel operations about fifteen years ago. Some of the best cameramen in the business assured me that they could get the same or better results with ordinary ortho stock and some trick filter of their own devising. When I started to talk to them about absorption bands, they walked away tapping their heads. The status of panchromatic stock today is ample answer.

We can anticipate that some day sound recording mechanisms will be about as foolproof as the cameras are now. But that will not come soon enough to save the necks of the alleged recordists who refuse to qualify.

It seems fairly clear that we may hope for a great simplification of sound recording equipment.

In one of my annoyed hours the other day, I found that in producing Pathe Sound News with the excellent but ponderous camions made by the General Electric Company, we used 44.63 tone miles per second of edited screen time. Operating a big fleet of these big trucks makes newsreel production closely resemble the railroad business in terms of mileage and tonnage. We may recall that Mr. Thomas A. Edison's first motion picture camera was larger than a doghouse, and weighed about half a ton. It had less capacity for the same work than a five pound automatic camera of today.

Some of our troubles in the sound recording business bearing on personnel have their smiling aspects. In a sound track made by one of a fleet of camions assigned to an event in Washington, we found surprising sounds resembling thunder and the sharp crash of lightning coming from a very clear sky, and disagreeably accompanying otherwise pleasant bits of music. The resulting investigation revealed that the microphone man had been standing alongside his instrument, cracking peanuts while the event went on.

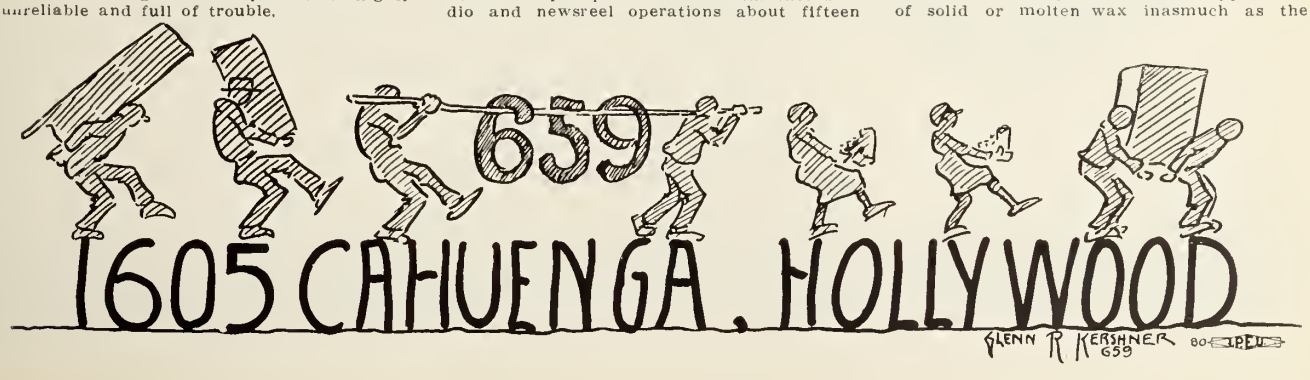
That nickel's worth of peanuts was expensive for both the company and the employee.

One of the major problems of personnel reposes in the difficulty of convincing both engineers and recordists that they are engaged in an enterprise which is an art quite as much as it is an industry. While mechanical and electrical perfection are necessary they are not in themselves enough. There is no substitute for thinking and for that general assortment of common knowledge that the diverse problems of the work require.

A trivial case in point developed not long ago when we were engaged in making a sound interview with Chief Justice Taft. The microphone man had been cautioned to make notes for the subject report on each scene as it was shot. At the conclusion of the talking on this assignment, the young man dashed up and demanded, "Mr. Taft, now what is your first name and how do you spell it?"

Abstract of
THE SURFACE TREATMENT OF SOUND FILM
J. I. Crabtree, Otto Sandvik and C. E. Ives
Kodak Research Laboratories

Sound record prints may be satisfactorily lubricated by applying a thin coating of a solution of paraffin wax in carbon tetrachloride along the edges of the film in the perforation area and drying. This treatment is superior to the application of solid or molten wax inasmuch as the



LIFE

in

"STILLS"



By courtesy of the
Universal Pictures Corporation

LIFE—that combination of depth, roundness, quality, soft brilliance—is always evident in the negative made with Agfa Portrait Film.

Photographers using this particularly fine film, know the beautiful quality of the negative it produces, the outstanding depth and richness, the ease with which delicate tone contrasts can be retained through an extra-wide exposure range without the use of special formulas or methods. And Agfa Portrait Film has speed too.

To those who have not used it, Agfa Portrait Film presents an opportunity for even better negatives—and better likenesses—with uniform certainty in results.

Agfa PORTRAIT FILM

CLEAR AND MATT BACK

•AGFA ANSCO, OF BINGHAMTON, NEW YORK•

wax does not flake off or encroach on the sound track during rewinding or projection which would produce ground noise.

The application of the wax is accomplished by means of two steel disks which dip into the wax solution. The quantity of wax applied is varied by changing the rate of rotation of the disks in relation to the speed of the film. After application the solvent is quickly evaporated by passing the film through a short narrow tube through which a current of air at 120°F. is blown.

An alternative method of lubrication is to apply a 1.0% solution of light motor oil in carbon tetrachloride to the entire film surface and then buff in a manner as described previously.

In addition to providing satisfactory lubrication, it is desirable to treat sound record prints in such a manner that the film will have a minimum tendency to accumulate scratches, dirt, dust and finger marks during handling which in turn cause ground noise. Several suitable methods of treatment have been evolved, the most satisfactory of which consists in applying a 1% solution of cantol wax to the entire emulsion surface of the film, buffing, and edge waxing as described above. The cantol wax provides a hard surface which in itself has poor lubricating properties, but the edge waxing supplies the necessary lubrication. A film treated in this manner eventually becomes scratched but the scratches are usually confined to the wax coating and do not reach down to the silver image so that by removing the wax coating at intervals by cleaning with carbon tetrachloride and re-waxing, the image is maintained clean and free from scratches.

Three machines are necessary for the above treatment, namely (a) the waxing and buffing machine, (b) the edge waxing machine, and (c) the cleaning machine. Machine (b) can be attached to the end of machine (a) but it would be inefficient to attach machine (c) to machine (a) plus (b) because the former can be run at a speed of 200 feet per minute while it would not be desirable to run machine (a) at a speed greater than 30 feet per minute unless more buffing wheels are attached.

Although in some of the experiments outlined the treated film was cleaned and retreated after projection 10 times, in practice this routine is usually not necessary, the treated film requiring cleaning only when indicated by the presence of visible dirt, oil spots, or excessive ground noise. In the case of the tests with the cantol-buffed and edge waxed sample, after projecting 130 times without further treatment of any kind the magnitude of the ground noise was only slightly greater than at the start, the projectors being kept in a very clean condition throughout the tests. This test demonstrates that it is possible to keep the projector sufficiently clean and the rewinder free from dust so that with film treated in the manner outlined no excessive ground noise is produced after 130 runs.

In the absence of the above surface waxing treatment, with newly processed prints it is imperative to either edge wax as recommended or to pass the film through a cleaning machine using a 0.5% solution of light motor oil in carbon tetrachloride. This treatment will apply a thin film of lubricating oil to the entire film surface which will assist in the prevention of the accumulation of ground noise although in view of the slightly tacky nature of the oiled surface, the film will accumulate dust and dirt more rapidly than cantol waxed film and will require cleaning much more frequently.

Abstract of
A QUICK TEST FOR DETERMINING THE DEGREE OF EXHAUSTION OF DEVELOPERS

Merle L. Dundon, G. H. Brown and J. G. Capstaff
Kodak Research Laboratories

An exhausted borax developer not only requires a longer time of development than a fresh one but also causes an apparent loss of exposure. A similar effect is obtained by adding bromide to the fresh developer. It is suggested that the loss of exposure is caused by the solvent action of the sulfite while the start of development is being delayed by the bromide. The degree of exhaustion of developer can be quickly determined by dipping an exposed standard strip of film in the developer for a definite short time, and then immersing the strip in a solution which stops development and makes the undeveloped emulsion stable when exposed to light. Such a test has been found to be very reliable.

Abstract of
SOME PROPERTIES OF CHROME ALUM FIXING BATHS AND STOP BATHS

J. I. Crabtree and H. A. Hartt
Kodak Research Laboratories

A discussion of the factors which control the hardening action of chrome alum solutions when compounded in stop baths and fixing baths. Suitable formulas are given and the behavior of a recommended stop bath and fixing bath on exhaustion is dealt with in detail.

The hardening properties of a chrome alum solution are very sensitive to slight changes in acidity so that during use as the acid in the fixing bath or stop bath is neutralized by the alkali in the developer carried over by the film, the transition from a hardening to a non-hardening condition is very abrupt. The hardening properties of a chrome alum fixing bath likewise diminish with age even without use and this is attributed to the formation of a green chromium complex which does not harden the gelatin film. Chrome alum baths are especially suitable for high temperature work when excessive hardening is desirable, but for work at normal temperatures potassium alum baths are to be preferred because they harden the gelatin to a less degree, they do not lose their hardening properties on standing without use, while they retain their hardening properties for a longer period during use and without revival.

Abstract of
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September 11, 1929.

Abstract of
PROGRESS IN THE MOTION PICTURE INDUSTRY, OCTOBER, 1929, REPORT OF THE PROGRESS COMMITTEE

The most important items of progress during the past six months have been the extensive use of all-color sound pictures, or pictures with extensive color inserts, and several demonstrations of enlarged projected pictures by the use of film wider than 35 m.m.

Only two-color subtractive processes are at present in vogue and in one process extensively employed, two dye images are produced in a single layer film by imbibition. Although some three-color imbibition films have been prepared, they have not been publicly displayed.

To date only one type of wide film has been put on the market, this being 70 mm. wide. Comment of the trade has been most enthusiastic with regard to its suitability for scenics and news events, but it is apparent that a new photographic technic is required to secure more pleasing perspective in the case of photoplays. Difficulties invloved in the more universal adoption of the wide film are the present lack of standardization of size, the necessity for greater illumination at the projector aperture, and the prevention of film buckle.

Studios in Hollywood are now producing only about 5 per cent of silent pictures. When it is considered that only one year ago the first dramatic pictures were shown before the society, notably "The Singing Fool," the remarkable progress made since that time is apparent. There has been a steady improvement in the quality of sound reproduction, notably in the theatre, but in many cases the quality in the theatre falls far short of that which the film is capable of producing when it leaves the studio. Much still remains to be done in the way of improvement even with the best of recording. With the high quality music given by the modern radio receivers the public is realizing that the average theatre music is not equal in quality to that emanating from their radios at home.

Notable advances in studio technic have been (a) the tendency to use a minimum number of microphones and eliminate "mixing," (b) the silencing of cameras such as by means of insulating coverings thus permitting greater freedom of camera location, (c) the tendency to use more live studios so as to simulate more closely natural sounds, and (d) the non-simultaneous recording of scene and sound.

A noteworthy advance in reproducers has been the introduction of the condensor or electrostatic reproducer consisting of a rubber diaphragm coated with aluminum foil and stretched across a metal grid. Apart from the high quality resulting, the reproducer occupies no more space than the average screen and can be raised and lowered just as easily.

No fundamental advances have been made in the field of stereoscopic motion pictures and although some of the sponsors claim that their wide film processes give stereoscopic effects, they are at the most pseudo-stereoscopic. A much higher order of relief is noticeable in many of the pictures in color.

Although color pictures have been televised during the past six months, the probability of television usurping the present motion picture in the immediate future appears to be very remote.

Respectfully submitted, J. I. Crabtree, chairman; J. A. Ball, F. A. Benford, L. J. Buttolph, G. L. Chanier, J. W. Coffman, R. E. Farnham, G. E. Mather, R. Rogers.

Abstract of
THE OPTICAL PROBLEMS OF WIDE FILM MOTION PICTURES

W. B. Rayton

The motion picture industry seems to be about to adopt film wider than the standard 35 m.m. film now in universal use.

Such a step imposes very grave burdens on the optical systems required for photography and projection. Both in photography and in projection, lenses have been called for which while maintaining the high speed and fine definition necessary for the conditions in the studios and theatres must cover

Jack R. Young says

"I have been saving money with Mr. Eschner for several years, and I have not only enjoyed this plan personally, but everyone to whom I have recommended it has been more than pleased. It is even better than it is represented to be."

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hitherto unrealized fields of view. In projection the question of illumination bristles with difficulties.

The Bausch and Lomb Optical Company has been co-operating with the sponsors of wide film motion pictures by designing the new lenses involved. New photographic lenses which cover a picture area 23x46 m.m. at a speed of f:2.3 in focal lengths as short as 50 m.m., new projection lenses which will project, with beautiful definition, pictures of this size in focal lengths as short as 3 inches, and new condensers to bring the brightness of the projected picture up to a satisfactory level have been perfected.

Abstract

THE OPTICS OF MOTION PICTURE PROJECTORS

The optical system employed in a motion picture projector is considered on the basis of the conservation of energy principle. Equations are given from which the screen illumination can be computed for an ideal system from the brightness of the source and the constants of the lenses. This ideal system assumes lenses which are perfectly corrected and which introduce no loss of light by absorption or reflection. Although such a system is unattainable in practice, it provides a basis by which the efficiency of any actual system can be rated.

Abstract of

The Academy of Motion Picture Arts and Sciences and Its Service as a Forum for the Industry.

The Academy as a successful experiment in organization engineering has combined in a unified body the principal members of the several associated but diversified creative arts in the motion picture production industry on the basis of friendly co-operation for the common good.

Among its activities four have a special interest to the technical departments:

1. Meetings are held for interchange of ideas and information among the different branches of production.

2. A joint committee of producers and technicians may sponsor an extensive program of non-competitive research.

3. The Academy in co-operation with other technical societies is serving as the medium for correlation of several practices between studios and theatres.

4. A pioneering experiment in industrial education is now in progress. About 500 selected studio employes will have the benefit of class instruction by leading recording and reproduction authorities. The information supplied will also be made generally available in the form of reprints of papers.

Abstract of

SOUND MOTION PICTURES IN EUROPE

N. D. Golden

American talking motion pictures in Europe with the exception of England are according to N. G. Golden, assist chief, Motion Picture Division, Bureau of Foreign and Domestic Commerce, Washington, D. C., to some degree encountering difficulties where English is not the predominating language. On the other hand sound motion pictures with musical synchronization are finding considerable favor in the different countries of Continental Europe.

Exports of American made motion pictures to foreign markets have increased rather than decreased with the advent of sound pictures abroad. Europe with approximately 27,000 theatres has 1643 theatres with a seating capacity of 1000 and appromiately 8000 theatres seating from 500 to 1000, which are potential purchasers of sound equipment.

The main problem confronting European theatre ownes is the financial burden from installing the required apparatus for the showing of sound pictures. Relief in this direction, however, seems to be approaching with the recent announcement by certain large American manufacturers of a smaller apparatus and facilities for the financing of it.

Abstract

SOME NEW ASPECTS OF REVERBERATION

Edward W. Kellogg

Experience has indicated that for an auditorium of a given size there is an optimum value of reverberation time. Some of the beneficial effects of reverberation can be imitated by means of electrical sound equipment. Where davantage can be taken of this factor, it may prove desirable to increase acoustic absorption much beyond what is now considered the optimum value.

Abstract of

A METHOD OF TESTING FOR THE PRESENCE OF SODIUM THIOSULFATE IN MOTION PICTURE FILMS

J. I. Crabtree and J. F. Ross
Kodak Research Laboratories

A method of testing for the presence of sodium thiosulfate in motion picture film has been worked out which consists of placing strips of processed films in a mercuric chloride-potassium bromide solution. If the film contains an appreciable quantity of sodium thiosulfate the solution becomes opalescent, the turbidity being roughly proportional to the quantity of hypo present. It is possible to detect the presence of 0.05 milligrams of sodium thiosulfate (crystals) in motion picture film by this test.

Some of the factors which determine the rate of fading of silver images have been outlined and the critical hypo content and degree of washing necessary with negative and positive motion picture film to insure stability have been indicated.

Under ideal conditions it is necessary to wash thoroughly fixed motion picture negative film for 30 minutes and motion picture positive film for 20 minutes in order to eliminate the hypo. Under practical conditions the times are greater according as the conditions differ from the ideal.

Abstract of
October 7 to 10th, 1929

A NEW SIXTEEN MILLIMETERS MOTION PICTURE CAMERA

By Joseph A. Dubray
Chief of Technical Service, Bell & Howell Co.

A new 16mm. camera, known as the "FILMO Model 70-D" has been presented to the amateur field by the Bell & Howell Company.

This camera is of the spring motor type, has a capacity of one hundred feet of film, and each winding of the motor permits to uninterruptedly expose twenty-five feet of film.

The camera is equipped with an integral turret head, capable of holding three lenses of different focal lengths, and a newly designed viewfinder, permitting a rapid change of masks which determine the field of view covered by any one of six lenses of focal lengths varying from 1 inch to 6 inches.

The mechanism of the camera is described and stress is laid upon the features of the speed regulating governor, which is of an entirely new design and instantaneous in its action. The governor permits to operate the camera at speeds varying from a minimum of eight to a maximum of sixty-four pictures per second, including all intermediate speeds.

A device has been incorporated in this camera which, together with the governor, insures a positive start of the mechanism at any desired speed and an equally positive stop at all speeds, without sacrificing the features of the camera stopping with the shutter in its position of occultation, and without the slightest acceleration or deceleration being visible on the exposed film.

Mention is made of the lubrication system of the apparatus.

William H. Daniels
SAYS

"I guess nearly everyone at M-G-M Studio is already doing business with Mr. Eschner, so that it isn't necessary for me to say very much regarding his plan. However, I am glad to have started my savings account."

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This illustration shows the Akeley Gyro Tripod in actual use by the Western Electric Company, taking sound moving pictures.

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. . . anticipated necessity
with a tripod ideal for Sound Pictures

"GIVE us the best camera tripod that human ingenuity can devise!" This was the demand of the sound cinematographers.

It was characteristic of the Akeley Company that its research laboratories had already anticipated this demand and were putting on the market such a tripod—a tripod quiet in operation, capable of great speed and flexibility, vibrationless but light, staunch yet easy to manage.

The Akeley Universal Gyro Tripod, containing the famous gyro mechanism, stands today a leader in this latest field of photography. This tripod is in constant use in many leading motion picture studios making Sound Pictures. These studios include Metro-Goldwyn-Mayer, Fox-Case Movietone, Pathe and Paramount. Other world wide corporations, such as Radio Corporation of America, Westinghouse Manufacturing Company, Western Electric Company and General Electric Company are enthusiastic users of the Akeley Gyro Tripod in their important work. We invite you to write for full description of this Tripod and details of our deferred payment plan.

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Skillet Wanted

Harry Merland has installed an electric cook stove in his camera booth at Paramount so that he may cook his own supper, thus fooling the directors who never stop for meals.

— :: —

On the Way to Monterey

Roy Musgrave: "Was it pretty up at Monterey on the Technicolor location, Carl?"

Carl Guthrie: "I'll say it was—pretty foggy."

— :: —

Right-O

After all, static isn't the worst thing you see on the films now-a-days.

— :: —

Market Note

Wilbert Wright: "Hello, Bill, how ya making it these days?"

Bill Margulies: "Oh, same as usual, only malt is a little high."

— :: —

Horse On Him

Friend Baker: "Mac, the leading man is continually moving out of his position; go out and do something about it."

John McBurnie: "What do you want me to do, lie down and hold his feet?"

— :: —

Radio Gastronomics

Bob Tobey (eating chicken sandwich at the Warner Studio; time, midnight): "Well, dinner at the Brown Derby by remote control."

— :: —

Lingerie Note

Speed Mitchell: "Have you heard the new underwear song?"

Speed Hall: "I have not. How does it go?"

Speed Mitchell: "I underwear my baby is tonight?"

— :: —

Caution

Electrician: "Catch hold of one of them wires, buddy."

Asst. Electrician: "I've got hold of one of them, what now?"

Electrician: "Feel anything?"

Asst. Electrician: "Nope."

Electrician: "Well, don't touch the other one; it carries two thousand volts."

Pity the Poor Extra

She was only an extra girl, but she had a nice fur coat.

— :: —

Endurance

Love is that quality which leads an actress to marry a cameraman and stand for him the rest of her life without salary.

— :: —

Cameraman's Burden

Henry Gerrard: "How are things coming these days?"

Archie Stout: "Fair. But this night life is beginning to wear on me."

— :: —

The Censor

A censor is a man who took too much castor oil when he was a baby.

— :: —

The Shoe Trade

Extra Girl (anxiously): "Oh Charlie, how far is it back to Hollywood?"

Assistant Cameraman (in bran new roadster): "About two pairs of Oxfords."

— :: —

Efficiency

"Whatcha doin' now-a-days for a living?"

"Say, wher'd ya get this job as 'Efficiency Man'?"

— :: —

Mechanical Note

Maurice Kains says, "Now that we have motor driven cameras, there is no excuse for a cameraman getting cranky and flying off the handle."

— :: —

Not a Look-in

First Assistant: "I heard you refused a job as First Cameraman."

Second Assistant: "Yeh; there was no chance for advancement."

—o—

Warner Brothers' Ranch is becoming home to William Ries, Warner Brothers' cinematographer. For Ries, who shot "Under a Texas Moon," the all-color outdoor drama, is now busily engaged photographing "On the Border," a thrilling drama starring Rin-Tin-Tin on Vitaphone. William McGann, once an ace cameraman, is directing.

King Charney says . . .

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LOCATION IN SUMATRA

Fleet Southcott has received a letter from Buddy Williams who is in Sumatra with the Schoedsack expedition. Buddy's address is Hotel De Boer, Medan, Sumatra.

Shooting has begun and Buddy is certain that Schoedsack will return with a world-beating picture as usual.

Buddy is particularly impressed with the size of the snakes they grow on that location some of them being twenty-eight to thirty feet long.

According to Buddy they are easy to catch and make great pets. The method is to cut a long bamboo pole—longer than the snake, of course—then locate your snake and begin operations by tickling him in the ribs. Immediately he drapes himself around the pole and he's yours. Buddy promises to send one to Local 659 for an office pet.

He also reports great friction between the natives and the Dutch and states that the situation is becoming serious.

The boys are invited to write to Buddy. He may be reached through the American Consulate, Medan, Island of Sumatra.

—o—

Elmer Fryer, portrait artist for First National and head of the still departments for First National and Warner Brothers, spent a three-day cruise off the coast with Lloyd Bacon in the director's new luxurious cabin cruiser.

—o—

George Baxter, still photographer for Warner Brothers Vitaphone Varieties, is one of the very busiest still cameramen in the industry. George shoots still pictures on four two, six one and two-reel productions a week.

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PANCHROMATIC NEGATIVE
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PER FOOT

The Daily Grind

By RALPH B. STAUB

JOE AUGUST bought a new car that he calls the LUKE. Joe says it never gets warm.

* *

RAY BINGER tells me he writes home every day. Ray, I didn't know you needed money that often.

* *

A producer heard ED DUPAR swearing at his assistant and now wants to sign him up to write a play.

* *

JOE LaSHELLE says that his next ambition is to become an acrobat, on account of the quick turnover.

* *

MACK STENGLER says its cruel to show travel motion pictures in prisons.

* *

FRED WESTERBERG tells of the Jewish father who wanted to know why his son at college had to bring home the bacon.

* *

DEWEY WRIGLEY, on a Navy man, says that if they ever have another war he hopes they'll build bigger ships and more ports.

* *

ALVIN WYCKOFF wants to know why a train that is FULL can go straight.

* *

WATER VAN ROSSEM says he can play in any orchestra an dalways be in the right key. I guess Walter uses the old skeleton system—fits anything.

* *

HENRY SHARP said that a Hollywood theatre had a panic the other night. They turned the lights on all of a sudden.

* *

EDDIE SNYDER knows a Scotchman who always kisses his neighbors' kid after the kid has eaten some candy.

* *

FRAN KCOTNER quotes a Chicago mother: "NOW GO INSIDE AND SHOOT YOUR BROTHER GOOD NIGHT." Frank says this is the 1930 edition of the baby's prayer.

* *

WM. HYER knows a girl who went to college for years and never was kissed; you mean a convent, Bill.

* *

AL GILKS acted in the talkies the other day. He played the footsteps in a sound picture.

ELMER DYER says his assistant is a man about town and a fool about women.

* *

GEORGE MEEHAN: "Do you like bathings girls?"

LEN POWERS: "Don't know, I never bathed any."

* *

Famous Last Words: HOW ABOUT OUR I. A. T. S. E. BALL?

o

MAPPING ALASKA FROM AIR

(Continued from Page 8)

show. Up and down, over some of the ruggedest country I ever hope to see and hoping that Old John Motor won't conk. It's not the fact that we can't get down safely if they do conk, it's the long wait between meals. We carry, as a safeguard an emergency outfit that will keep us in food at least five days.

After the obliques are made then the work starts, and if any of the still men holler about how many prints they have to turn out let them tackle a job where some two or three hundred are made in a single flight and then have an average of twenty-five prints from each negative to get out for a starter. This last mapping stretch has put us some six rolls behind so we won't have a chance to get "grouchy" by having time hang heavy on our hands.

The movies come in for their share as I am making a complete record of the Expedition's activities up here. So far I have run three thousand feet at a preview. Wish I had a few lights to work the laboratory stuff up, but so far am getting by without too much criticism. I get a kick out of making the air stuff and that's where I belong.

o

GROWTH

Barsam & Tollar Machine Works have taken over the Cinema Machine Company, and now build the Cinex Testing Machine and the Cinex Polishing Machine.

Barsam & Tollar are those boys who built the Spoor Thompson Developing Machines at the Bennett Laboratory, and they are known for their skill in rebuilding printing machines for sound work and other motion picture machine work.

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LOS ANGELES, CALIF.

At Your Service!

BY

EMERY HUSE, *West Coast Division, Motion Picture Film Department, Eastman Kodak Company*

About six months ago the Eastman Kodak Company opened up the doors of a new building at 6707 Santa Monica Boulevard as its West Coast Division of the Motion Picture Film Department. Since that time the personnel of this department has been trying to establish in the minds of those who are engaged in the production of motion pictures the purpose for which this building was constructed—SERVICE. It is the intention of the author in this short article to briefly outline the various branches of their newly created Service Department and to discuss somewhat the aims of this particular branch of the Eastman Kodak Company.



EMERY HUSE

The Eastman Kodak Company extends whole-hearted co-operation and assistance to the problems of the users of sensitized photographic materials. Hollywood being as it is the world center of the motion picture industry, it was particularly fitting that the Eastman Kodak Company should be more adequately represented here than it has in the past. However, it must be remembered that this concern has had representation in this locality for the past fifteen years to take care of service requirements of the times. With the change in the general attitude of the industry from that of practical production to the more technical aspects of the industry, such an institution as the Eastman Kodak Company now has in Hollywood is highly essential.

Prior to the construction of the building pictured in this article, those connected with the Eastman Kodak Company were well aware that adequate service could not capably be carried on without some definite tangible assistance in the form of a research laboratory. To that end this building was constructed and as a result there are now three distinct branches of this department established solely in the interests of and for those connected with the production of motion pictures. This building houses a sensitometric laboratory where definite service and research problems may be carried on. In addition to the laboratory there is a complete sound equipped projection room and theatre and a reference library of photographic literature. These three features, together with six specially trained men, are available continually to take care of the demands for service from those in the industry.



A tabulation of some of the different types of work which can be handled will make for clearer understanding.

1. Practical and theoretical film tests.
2. Filter tests.
3. Study of developers.
4. Sensitometric studies of problems for the sound engineers.
5. Technical development of and recommendations for special photographic products.
6. Problems of duplicating.
7. Definite service on film complaints.

Such problems as those outlined above are conducted with the greatest possible speed and the results obtained for any individual, group of individuals, laboratory, or production unit, are held in absolute confidence.

This article has endeavored to show in brief the various features of the new Eastman Building. Following this article in successive issues of **The International Photographer** will be short articles dealing with the specific instruments in the laboratory, the uses to which they are put, and from time to time short articles will appear on subjects particularly pertinent to the motion picture industry.

Roy Davidge says

"I subscribed to Al Eschner's plan because I liked the idea of receiving a steady income of one hundred dollars per month from a savings of one hundred dollars per month for approximately eight years. The idea of being able to build up a steady income in so short a time appeals to me greatly."

ALBERT ESCHNER

PACIFIC COAST BLDG.-LOAN ASSN.

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Flexible Drive Shafts

Their Application to Sound Pictures

BY

J. C. SMACK, *Industrial Division, The S. S. White Dental Mfg. Co.*

Before describing the actual applications of flexible drive shafts to motion picture equipment, it might be well to give you as briefly as possible a general description of flexible shafts and their characteristics.

Flexible shafts are manufactured in all sizes from .041 inches to .750 inches in diameter and larger. The material itself is a special grade of steel music wire of high tensile strength and may be wound in any number of layers from two to nine, according to the type and size of flexible shaft desired. Shafts of widely varying characteristics may be produced by different combinations of wires, by differences in number of layers and subsequent heat treatment.

Irrespective of diameter, flexible shafts are regularly made in two general types, classified as Grade "H" and Grade "S." The Grade "H" flexible shaft has high torsional strength, or resistance to twisting strain, and is adapable to the majority of uses. Grade "S" shafting has greater flexibility than Grade "H" and is usually used where extreme flexibility is the deciding factor. Various other grades are also supplied for special applications.

To be more specific, let us investigate the characteristics of those shafts most widely used in the motion picture industry, that is, the ¼" and 5/16" diameters.

A flexible shaft, to be satisfactory for synchronized sound-motion picture equipment, must be flexible transversely—must be as torsionally stiff as practical, and still not be too heavy or cumbersome for general use. To this end the ¼" diameter Grade "H" Left Lay Shaft was selected for driving the Bell & Howell-Western Electric Cameras. This shaft has sufficient flexibility to allow the motor to be placed under the camera, to one side, or whatever position is the most convenient for the operator. The safe allowable torque on this shaft at 1450 r.p.m, the speed of the camera drive shaft, is 13 inch pounds, considerably more than the actual torque of the camera at any time. Extensive experimentation with this shaft indicted its altogether satisfactory performance and it was adapted by the Western Electric Co. as standard equipment for their cameras. In the selection of a casing for this application, the ½" diameter fabric type was used, due to its lightness in weight and flexibility.

Further experimentation on various types of camera drives indicated that there were cameras which exerted a greater torque on the flexible shaft than others. Investigation showed that some cameras, in particular the new sound cameras, were considerably stiffer in operation than others. Some were so stiff that at times a wobble or fluctuation was experienced in the camera drive. A larger shaft, the 5/16" diameter, was substituted for the ¼" and no further trouble was experienced on these cameras. With this shaft a ⅝" diameter two-wire Black Japanned Metallic Casing is used, or a ⅝" diameter Rubber Covered Casing. For cameras used without a soundproof booth, the Rubber Covered Casing is the best as it will deaden any slight noise caused by the rotation of the flexible shaft. Somewhat the same effect can be obtained with the metallic casing, by covering it with a light flexible rubber tubing. It is also advisable to grease the flexible shaft occasionally with a good grade of light grease.

Attachment of the flexible shaft assembly to the motor is usually made with a special ball bearing motor coupling manufactured for this purpose and designed to fit the standard end fittings furnished on stock ¼", ⅝" and ⅜" diameter flexible shaft combinations and their respective casings. These couplings are also supplied in various sizes to fit standard size motor shafts.

Due to the many types of cameras, there is no standard adapter made for attaching the flexible shaft drive to the camera. It is, however, a simple matter to have one made to fit both the camera drive shaft and the standard end fittings provided on the flexible shaft and casing. Flexible shaft camera drives are usually used in lengths from 3 ft. to 6 ft. and in special cases up to 10 ft., the length being governed of course by the position of the motor. So much for camera drives.

AN IMPORTANT EVENT

Charles F. Eichhorn, vice-president of Local 306, of the I. A. T. S. E. & M. P. M. O., will address the Trade and Public Press of the United States, at a luncheon to be held by the Projection Advisory Council, at the Hotel Astor, New York, Thursday afternoon, November 14th. It is believed that it is the first attempt of this nature to secure recognition of the responsibilities of the projectionist and the importance of projection.

For many years projectionists and others interested in projection have realized that there was urgent need that the Press should be better informed regarding the technical side of the motion picture industry. After Mr. Canavan's talk, an open forum will be held and the Press invited to ask questions which will be answered by certain men selected for this purpose. It is to be hoped that a better understanding will be created through friendly contact and the Press have a more sympathetic and better informed viewpoint regarding the technical and practical problems of the motion picture projectionist.

Mr. Eichhorn is chairman of the Projection Advisory Council Luncheon Committee, and all those desiring tickets for this event are requested to communicate with him.

TECHNICOLORINGS

The latest M-G-M all-color all-sound production, "The Rogue Song," has just reached completion at the Culver City plant. Technicolor cameramen who are responsible for the photography are as follows: Percy Hillburn, Charles Schoenbaum, Friend Baker, Earl Stafford, John Landrigan, John McBurnie, Chas. Riley and H. C. Ramsey.

* * *

After a five-week schedule at the Warner studios "Hold Everything," an all-color all-sound feature has finally reached the laboratory. The Technicolor staff lines up as follows: Frank Good, Lee Davis, Milton Bridenbecker, Earle Walker, Harry Hallenberger, Chas. Geisler, Eddie Garvin and Carl Guthrie.

* * *

Color sequences for Henry Sharp's new talkie feature for M-G-M, "Lord Byron on Broadway," were made by Howard Greene, Allan Davey, Ira Hoke, Chas. Bohny, Maurice Kains, Chas. Straumer and Robert Tobey.

* * *

John S. Landrigan, formerly of the Paramount studios, has joined the Technicolor camera staff.

* * *

Harry Hallenberger, Paramount cameraman for many years, has left his old home for the Technicolor lot. Harry has just finished work on the Warner feature, "Hold Everything."

* * *

Eddie Garvin has joined the line up of crack assistant cameramen at Technicolor.

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What of Your Pay Check?

BY

EDWARD E. O'TOOLE, *Local 659*

While investigating various ways of investing (which costs nothing, but a little study and a few stamps) you will notice that stocks are sometimes sold in units of preferred and common stocks. Sometimes the preferred is convertible into common stock or it may have a date set upon which it may be called for redemption. Likewise the proportion of common to preferred should be noted. The stock may be top-heavy with preferred.

If you are not familiar with the stock market, its manipulations and the various issues, it is far better to investigate before you invest. More so if have only a small margin of surplus earnings.

I will take up individually public utility and issues, investing companies, building and loan associations, real estate, mortgages and banks as a field for your investments.

Well selected bonds are considered the safest medium of investment, but do not return a large yield, averaging around five (5) per cent so in this article I will eliminate them for the small investor.

By investments I mean safe ways of making your surplus earnings work for you so that in the future years you will be independent of the weekly pay check if necessary.

First you should understand the meaning behind the various stock and bond names called common and preferred.

Common stock is not common in the general understanding of the word; it is by far the choice stock in any sound, safe and above all, rapidly expanding business in this country. Income on preferred stocks is usually limited to a specified rate, and therefore has less promise for the long pull than good common stocks.

An Investment Trust is an organization formed by a group of responsible business men who invest the Investment Trust's funds in widely diversified securities giving the small investor the diversification that only the large buyer can afford. Due to the type of management and certain stringent rules set forth by the State Corporation Department, Investment Trusts and Trading Companies are one of the safest and most remunerative types of investments for the wage earner. They deal mostly in the leading common stock and bond issues of our country including railroads, banks, insurance companies, public utilities and industrials. The company's holdings are so extensive that there isn't a person who doesn't buy or use the product of the companies involved.

I have looked over a few of the leading issues and find that some have a cash return close to 7 per cent and the average increase in stock value would be conservatively put at 15 per cent making a total return of 20 per cent or over on your money which can't be beaten unless you gamble or trade in a few issues on the stock market, play hunches or rent speed movement cameras to producers. I cannot see any possible way of losing your investment through this type except in a general panic, which seems very remote.

Building and loan associations are in the same safe class inasmuch as they loan on improved real estate at less than their actual values. It is much easier to get your money out of building and loan associations, consequently the lower yield. They pay 6 per cent as a rule. If you can buy membership shares they will pay 8 per cent. Should you be interested in this type of investment it might be wise to ask, when writing for information, if you can buy in—meaning acquire their common stock or membership shares.

Not that I don't believe that they are good investments, but the watchword here should be buy low, sell high and use your own judgment. Don't buy "on the spot," as real estate salesmen say, or without due consideration of values. Also, it is not wise to put your eggs all in one basket, meaning money in one investment, because if that blows up you are sunk, also disillusioned, probably a confirmed spendthrift as long as the weekly check comes in.

Business property shows by far the greatest increase in values in real estate. Pick out a street that you figure will be a main artery or much used street then pick out what you think will be the business spot or corner and buy. If you can't handle a corner get the lot next to it which is a key lot especially if the corner lot is a small one. Be sure your title is clear, taxes low and everything in. If not, charge paving, storm drains, sewers, etc., to the purchase price. Buy always ahead of developments in any investment that promises expansion.

Mortgages are also good, paying around 8 per cent, but the individual has a hard time safely investing in them unless he spends a great deal of leisure on them or buys through an agent. We should all be fairly familiar with mortgages inasmuch as all of us have helped in our work to lift many mythical mortgages off the family homestead in one shape or another, the popular form being the rich-man-poor-girl plot.

Banks we are all acquainted with. They are necessary institutions which give us a supposed 4 per cent (I got $2.80 interest once) and keep our money, if any, from supposed burglars. The time element and small return eliminate bank deposits from my list of investments.

What you are probably saying is: "What has this got to do with me?"

Just this. You are probably earning more now than ever before and, if not, your income is at least steadier or you make more in a given length of time than before—before what—well, before our Local was organized. Think a moment and see if you can't save at least an average of $10.00 a week. $10.00 a week is $520.00 a year—say $500. Figure your returns on even this small investment over a long period of time, compound the expansion, stock splits (if any) and interest at say 8, 10 or even as high as 30 per cent yearly and you will pass an interesting half hour. No man's earning power lasts forever. A family man should be doubly concerned over the ability of his money to work for him and his. Information can be gotten through the papers and all libraries have investments books.

And so, in conclusion, I still maintain that common stock is not in the least common and preferred is not always to be preferred. If you can't understand why from my more or less feeble efforts or seek until you find (where'd I hear that bfeore) then you are hopeless. Cash your pay check as usual, pay your living expenses, your current amusement costs and throw the rest down in the gutter, watch the slime and muck of waste slowly carry it away, pausing here and eddying there until it reaches the sewer of oblivion.

Don't blame your failure to save on circumstances. "Circumstances! said Napoleon, "I MAKE circumstances!"



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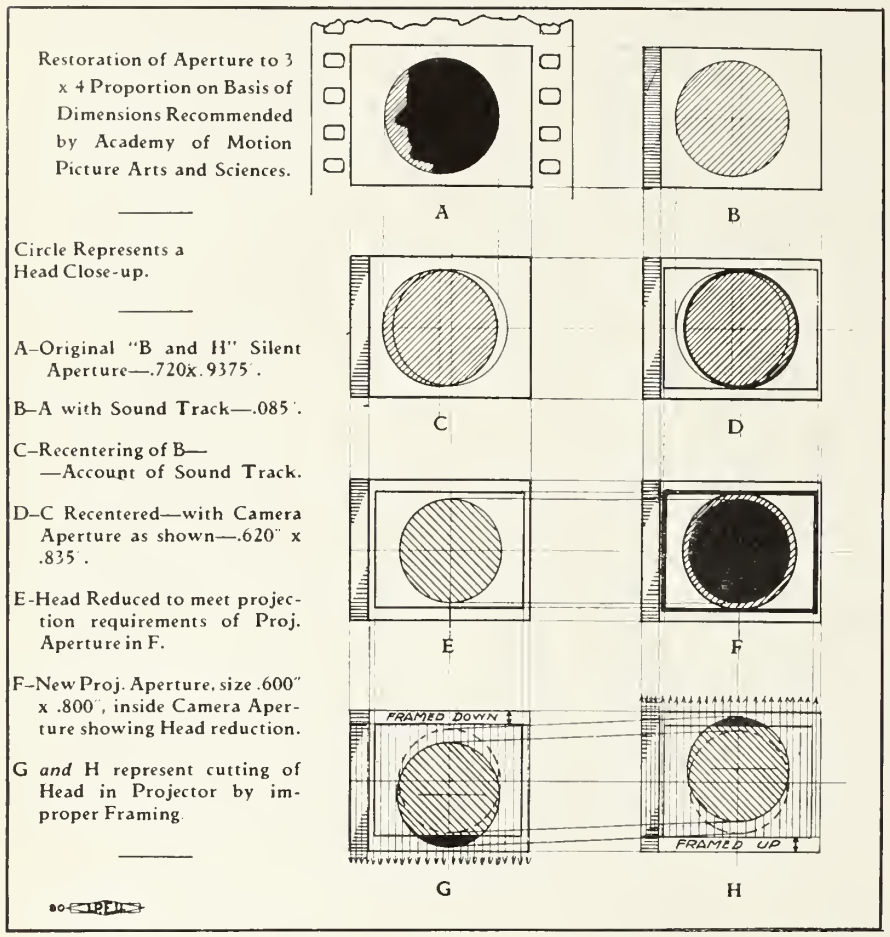
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GRANITE 7111

Restoring the Aperture

BY

DON GLEDHILL



By V. E. Miller, *Paramount-Famous-Lasky*

Hollywood motion picture studios are now composing all vital elements in sound-on-film pictures within an area of 0.620 by 0.835 inches although continuing to photograph the whole frame. This is in accordance with specifications recently recommended by the Academy of Motion Picture Arts and Sciences Technicians' Branch acting jointly with the Technical Bureau of the Association of Motion Picture Producers, the American Society of Cinematographers, the Pacific Coast Section of the Society of Motion Picture Engineers and the California Chapter of the American Projection Society.

Theatres which restore the full screen image from sound-on-film pictures have been notified that to secure the maximum image size in 3 by 4 proportion they

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should use projector apertures whose size would be 0.600 by 0.800 inches on the basis of projection on the level, the horizontal center of the aperture coinciding with the horizontal center of the S. M. P. E. standard aperture.

The recommendations and action by the studios followed the revelation through a nation-wide survey that theatres are using a wide variety of aperture sizes in projecting sound-on-film pictures. It was also found that an increasing number of theatres are restoring the full screen proportion through the use of a smaller aperture, lenses of one-half inch shorter focal length, and various re-centering devices. As only two studios were composing to allow for this the result was that in many theatres part of the heads and feet of characters were cut off in projection. The recommendations of the technical societies are designed to correct this serious condition and were chosen as the best mean of the projector aperture sizes among a number of large theatre chains.

Studios which are now marking the ground glasses of their cameras to conform to the recommended practice are: Paramount-Famous-Lasky, Metro-Goldwyn-Mayer, United Artists, Pathe, Universal, R. K. O., Tiffany-Stahl, Mack Sennett, Darmour, Educational; the Fox studio markings are the same width but allow .04 inches more height.

Committees representing the motion picture technical organizations in Hollywood are also studying the problems of standard release print practice and screen illumination under the sponsorship of the Academy.

[John F. Seitz, president of the A. S. C., and J. Fred Westerberg, both of Local 659, were members of the joint committee which drew up the resolution. Karl Struss and John Arnold, also of 659 and George A. Mitchell, of the Mitchell Camera Co., acted in an advisory capacity though not members of the committees.—Editor's Note.]

—o—

PHOTOGRAPHERS OVERSEAS

On the night of November 10, 1929, at the Russian-American Art Club, 5525 Harold Way, Hollywood, the members of Photograph Division Association of the United States Signal Corps who saw service overseas will hold their annual dinner and high jinks.

This is the annual re-union or get-together celebration and it is always an affair of tremendous interest to the boys participating.

Local 659 is represented in this organization by the following named members:

Maj. Farciot Edouart, A. R. C., Capt. George E. Stone, First Lieutenants Lucien Andriot, George Hill, Reggie Lyons, Ira Morgan, John Brown, Felix Schoedsack and Gus Peterson.

M. S. E. Peter L. Shamray, Sergeants First Class Thos. J. Galligan, Billy Williams, Len Smith, Hal Mohr, Ray Reis, Pliny Horne; Sergeants John Thompson, Eddie Snider, Fred R. Eldridge.

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CHICAGO WINS SERIES

While the Chicago Cubs were dropping four out of five games of the World's Series to the Athletics the Chicago cameramen maintained their batting average by photographing the World's Series—while their Philadelphia brethren were barred from Shibe Park.

It's a tough job to present a situation, before or after taking, in which Chicago cameramen can't claim the championship.

SIX-SIXTY-SIX

LOOK AND LISTEN

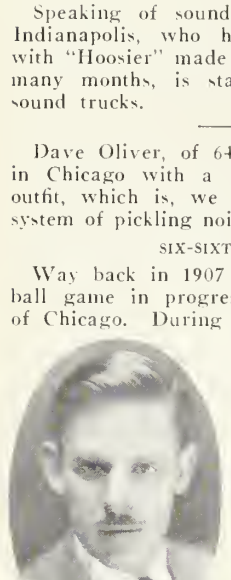
Harry Neely, press representative of the National Baseball Commission, dubs the Talkies the "Look and Listen" movies.

Speaking of sound, Ralph Biddy, of Indianapolis, who has been wrestling with "Hoosier" made recorders for these many months, is stalking the Chicago sound trucks.

Dave Oliver, of 644, recently arrived in Chicago with a new style portable outfit, which is, we understand, a new system of pickling noise.

SIX-SIXTY-SIX

Way back in 1907 there was a baseball game in progress on the outskirts of Chicago. During a heated inning of this prairie session John C. Richardson, more generally known for his many years' connection with Bell & Howell, was one of the pugnacious kid ball players and his battling proclivities got him into a melee from which he was rescued by an ardent pacifist on the side lines.



CHARLES DAVID

"You're a regular fella," says Rich. "What's your name?

"Who, me," asks the rescuer. "I'm Chuck David."

"Say Chuck," queries Rich. "How'd you like to work in the movies?"

"What?"

"Yea," says Rich. "I'm working for Essanay and I can get you a job there."

And, according to David, Rich did.

After David's entry into the movies he was on the sidelines when such notables as Harry Zeck, Walter Lundin, Jack Rose, Art Reeves and many others passed through the Essanay mill to glory and screen credit.

David twisted the tail of many celluloid mills in the years that followed, put in much time directing comedies, shot features, industrials and news reels subjects and has been featured in every technical angle of motion pictures. He is at present employed by the Chicago Daily News in connection with the Universal Newspaper reel.

Motion Picture Industries Local 666, I. A. T. S. E. and M. P. M. O., of the United States and Canada

By EUGENE COUR

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BULLETIN—The regular meetings of Local 666 are held the first Monday in each month.

David is the one-in-a-thousand for the office of president of the Chicago Local. He understands and is personally interested in every branch of the industry and has a sympathetic ear for the problems of every class in the Local.

He has the unanimous support of the entire membership and will have to do a "George Washington" to retire.

One look at the photograph of Charles N. David will convince any one that he would have made just as great a rep in front of the lens as back of it.

SIX-SIXTY-SIX

THEY'RE IN AGAIN

If Art Reeves has any ffic he will confer a favor on the secretary if he uses it on the next item.

In addition to an extraordinary rush of local business, there was the World Series, the executive committee meetings, another sound truck and the preparation of a sound laboratory to take up the time of the secretary.

Urban Santone is out of the hospital after a minor operation. President David reports the invalid is able to inhale spaghetti in his old-time form.

Ralph Phillips is preaching to all comers on the divine inspiration back of his new "Sink" apparatus. "Bull" and the rest of the sound boys will soon be cutting paper dolls together.

Jack Flanagan, of Cleveland, is in style. He was recently divorced from his appendix. Glad to hear the appendix came out second best.

Ralph Lembeck, of 544, and Marvin La Rue, of 665, have transferred to 666.

C. L. Venard, of Peoria, called us up, but failed to call on us.

STILL FULL OF PEP

Despite the fact that the World Series involved a large part of the Chicago membership, the last meeting, held at the Palmer House, was crowded.

The next meeting will be held in the Theatre of the Spoor and Ahbe plant where a demonstration of Natural Vision Film will be given. In addition the members will have a chance to inspect some new sound apparatus.

The members, both in meeting and out are all het up about sound. It is the consensus of opinion that the silent camera is ready for the Smithsonian Institution, hence everybody wants an in on the Look and Listen.

SIX-SIXTY-SIX

READY FOR THE PRINTER

The Executive Committee has boiled down the working conditions and by-laws after an exhaustive study and investigation of the sound and silent angles of Industrial, Newsreel and Production needs.

All of the district vice-presidents were present except Chas. E. Bell, of St. Paul who was on a trip at the time.

President David stated that he believed the survey of conditions was the most exhaustive ever made in the interest of cameramen in the Middle West and there was final agreement upon every point.

While the notes are still in the hands of the stenographers copies will be sent to each district, sister locals, and to Vice-President George E. Browne, of the International Alliance, at Chicago, as well as the International Alliance, before final adoption.

SIX-SIXTY-SIX

WANTED—REPORTERS

The copy of **The International Photographer** goes in the mail on the fourteenth of every month. Can we get some gabby young men to send us in items from Cleveland, Cincinnati, Detroit, Indianapolis, Milwaukee, St. Louis, Kansas City, Dallas, Omaha, Minneapolis, St. Paul and all other points in the jurisdiction of Six-Sixty-Six.

o

OUT OF THE ICE BOX

Harry Gant has invented a new camera movement that looks good. It is a silent movement, ingeniously contrived and with a lot of possibilities. On paper Brother Gant's new movement promises eventually to get the boys out of the sound booths, but possibly not "before Christmas."

Handsome Bob Miller has returned from Springfield, Ohio, whither he journeyed recently on the sad mission to attend his father in his last illness. Bob steps at once into a position with Technicolor. While in Springfield he visited the local projectionists and reports that they like THE INTERNATIONAL PHOTOGRAPHER.

Notes From an Old Lyre

BY

FREDERIC COLBURN CLARKE

THE WRONG TURNING

For a few hours last week there was a mystery on the Universal lot. Brother Howard Oswald was shooting close-up scenes of a monkey, whose unruly behavior had resulted in much waste of film, so, as Brother Shock, his assistant, put a fresh thousand foot magazine in the camera the director called lunch.

"Let's leave the animal alone—perhaps he'll behave better after eating," he said.

An hour later, Brother Oswald prepared to resume work, and called for film. Brother Schock claimed he already had changed magazines just before lunch, but as the one on the camera evidently contained exposed film, a heated argument ensued—but the cameraman is always right, so another exchange was made.

Scene—The projection room.

Time—The following morning.

Schedule up to twelve o'clock—then on came a thousand foot roll, which, after several hundred feet of scenery showing the same set—two Italian laborers came on the screen, grinned, then dropping picks and shovel, proceeded to burlesque a love scene, even to a final clinch and kiss.

"What the hell," exploded the director, "did you waste film on that, Oswald?"

"Not me," affirmed Brother Oswald. Brother Schock also pleaded innocence.

A hurry call brought the two Italians, who were watering the lawn in front of an adjoining set.

"Were you acting in front of a camera yesterday," asked the angry director.

"Si, Meester," replied the bolder of the two.

"Who turned the camera?"

"Camera—who make-a da pic?" said the Italian, nudging his companion, who grinned.

"Yes, damn it; who turned the crank of the camera!" yelled the director, infuriated by the grin.

"Ha—Meester—da monk! He make-a da pic!"

Brother Howard now puts a padlock on his Bell & Howell when he goes to lunch.

—o—

I think you know how genuinely I am interested in the fortunes of the American Federation of Labor, and how earnest and sincere a hope I entertain that its labors will be crowned with the best sort of success in the promotion of the best interests of the working men.—*Woodrow Wilson.*

Simeon Aller says

"I have both the investment and saving's plan as recommended by Al Eschner, and I unhesitatingly recommend that everyone investigate this proposition at once. It will prevent losses."

ALBERT ESCHNER

PACIFIC COAST BLDG.-LOAN ASSN.

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TRADE MARK REG'D.

SUPREMACY

INTERNATIONAL PROJECTOR CORPORATION

90 GOLD STREET NEW YORK

SILENCING THE ARC LAMP

(Continued from Page 19)

By the application of this simple device millions of dollars invested in arc lights and motor generator sets by the picture industry can be salvaged from the junk room and used in the production of the sound picture or "talkie."

After many months of research, tests and experiments the Los Angeles Bureau of Power and Light have developed, perfected and presented to the world a new silencing device for arc lamps.

The use of this device, which is a low impedance filter connected in shunt with the generator, affording a very low impedance pass for the higher harmonics, consisting principally of an electrolytic condenser of very high capacity, now permits the use of arc lamps in photographing sound pictures and in increasing the light tone range, giving the photographer a much wider latitude.

This new device enables the producer to use both arc and incandescent lamps without noise trouble.

It salvages an incalculable amount of hard light equipment that had been all but junked in the studios.

It is a curative economically applied, complete and performing its cure at the source.

Too much credit cannot be given the engineers of the Department of Water and Power. These engineers are not interested in the production side of electric power, but in its application. Their service is free either to the individual or to groups to bring about better, cheaper and more efficient methods of doing things. The motion picture industry is deeply grateful for their services in this instance.

At a private showing on October 7, at the Metropolitan Studios, where this device has been installed, Mr. E. F. Scattergood, chief electrical engineer of the Municipal Bureau of Power and Light of Los Angeles stated:

"We are gratified with the results. This co-operation of the engineers of this city department with the technicians of the motion picture industry, is in accord with the fundamental policies of the department, one of which is the encouragement of industrial expansion in Los Angeles by bringing in new and by assisting to bring about more economical production in existing concerns.

"Any industry or group in our midst is, therefore, entitled to all the city's research facilities and any problems of the motion picture industry, one of the dominant industries of the nation and surely one of the most progressive, would have received every effort of our research department even if the producers had not had an able staff of technicians to work with us on this problem."

The studio technicians are very much pleased with the results, particularly the personnel of Cinema Studios Supply Corporation, who prevailed upon the Bureau of Power and Light to have their engineers help to solve the problem of eliminating the objectionable noise in the arc light.

The engineers who should be given credit for the successful issue of their research are: T. A. Panter, chief of the Operating Department of the Los Angeles Department of Water and Power, whose liberal policy and enthusiasm has brought the testing laboratory to where it is constantly in search of new developments, and made this test possible; J. C. Albert, of the testing laboratory, who had charge of all tests; A. N. Owen, who showed originality in working out this development.

Mr. O. K. Buck, of the business agents' division, was appointed by Burdett Moody, chief of the division, to represent the consumers' interest. Mr. Buck also attended the S. M. P. E. convention at Toronto, Canada, to acquaint them with this new device.

OBITUARY

On this, November, edition of **The International Photographer** the presses were stopped to permit this brief announcement of the death of Brother LeRoy Greiner who passed away at his home, 820 Nineteenth street, Santa Monica, after an illness of several months. He leaves a widow, Mrs. Dorothy Elizabeth Greiner. At the time this announcement is written arrangements for the funeral had not yet been made. Our departed brother was a credit to his profession, a devoted husband, an exemplary citizen and a loyal member of the International Photographers.

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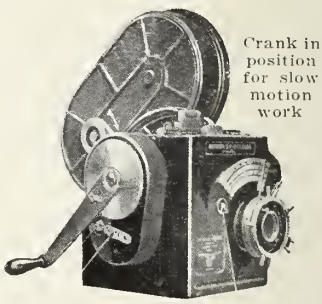
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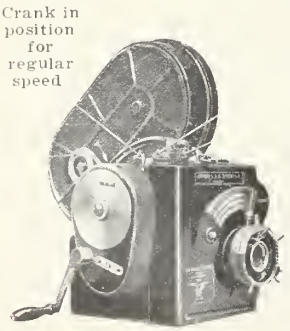


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Dear Editor—After reading the interesting yarn by J. M. F. Haase from Alaska, I thought you would like to hear about the trip I made across the Los Angeles river some time ago. I have told this story often, but never the same way twice, so if the editor will accept it I can get subscribers for *The International Photographer* for I know everybody will want to read my future contributions.

I was at the Plaza Hotel with a lot of cameramen and other fellows out of work when who should I see but my good friend Professor Nil come staggering across the lobby. I caught him just before he fell and he asked me if I was still out of work.

I replied as is customary under the circumstances and he said that reminded him of a story. I said I had heard it and asked him: "When do we eat?"

This sobered him up and he said he had a job with some work attached to it for me.

He explained that an expedition was starting out to attempt to cross the Los Angeles river for scientific and sanitary purposes and they would like to get hold of a cameraman who would be willing to photograph the trip and get paid later on providing they could get a release.

Having nothing to do at that time and being full of adventure and other things I said: "I'm the man you are looking for."

We set out from Hollywood fully equipped and after quite a few nickels and dimes on the meter arrived at the nearest bank of the Los Angeles river. There were so many banks in this part of the country we had quite a little trouble finding it.

I will not try to describe the party but will leave it to your imagination. I was in charge of the photographic corps and in full charge. So full that I had to take orders from myself. This was before the Union was in effect so I was not violating any of the various sections of the constitution and by-laws. But as you will see later I was the boss.

We started out to make a crossing. We proceeded quite a ways when the Professor ran across some very rare specimens of Jinbotels. There was some doubt as to whether he really discovered them or just happened to bring them along, but this encouraged us quite a bit.

So having nothing else to do and knowing they were anxious to proceed, I called a halt. Up to this time the Professor had been having all the attention so I thought that it was time that I had a little. I then ordered my crew to set up my camera. After I set it up they wanted to know what was wrong and I said that I wanted to see if my focus was jake.

I checked all the calibrations and found out that everything was swell and then I ordered my crew to strike the outfit. I soon had it packed and we were on our way again.

The undergrowth and overhead were tremendous, but we were determined to forge on.

Without the least bit of warning we startled a covey of Oboes. They were of the bearded variety and were taking a sun bath. Professor said they were undoubtedly the eastern variety and had migrated west for the winter, but I was sure that I had seen a couple of those beards in the King of Kings. They were gone before we could set up the camera, make out the seven five oh checks so I did not get a shot of them, but said: "We can get some stock shots when we get back."

We were soon on our way again and after turning a corner we came across a Big Six Wheel Dumtruc. This was a rare sight. It had the pink slip on the driver's seat and the Professor said that it was paid for and that we were not apt to see anymore like that for sometime. It was unloading as we arrived and as it put an obstruction in our path we had to detour. This did not bother us as we had all been in Southern California for sometime.

A short time later our navigator ran out of oil and lost his bearings. We tried hard to find them for him, but had no luck. He said if he could see stars he would be able to regain them. Some one hit him on the head but this did not work. The nearest place that I knew of to see stars was near Burbank where they cross the river to go to First National Studio. We thought that we might just as well go that way as the Professor said he was getting thirsty.

We located a couple of stars; they were not very large, but managed to get our bearings again and we found that we were in the center of the river and were without water. To go back meant failure.

This was a tough spot so I called a conference of the camera crew and asked myself what to do. I replied: Refer to your Eastman Filter Chart. I did and decided to use my own judgment.

I had quite a bit of distilled water for making tests so figured this would be a good time to make one. After several tests we decided there was too much Juniper in it but that did not stop us from going on.

A short time later we ran across the body of an old Ford. The Professor said it was a Model T and not in bad condition considering the shape it was in. We picked it up and it still rattled. This was indeed unusual, but a great chance for me. I unloaded my equipment at once. What I should shoot it with was the question that was hard for me to answer. Should I use a 16 mm. camera with a 40 mm. lens or a 35 mm. camera with a 25 mm. lens, or what.

I had been in tight places before so there was only one thing to do. I pulled out my rifle and shot it with that.

So on and on we went and finally we arrived on the opposite bank of the river and we all had traces of moisture on our shoes. Professor Nil said that this proved that there had been water in the river and, from his angle, the trip was a success.

I got a lot of stock shots and some unused titles when we got back and if they get a release I will get a check if they get a release.

The Professor expects to make another trip soon to try and get some data on the Fillums Talkie. This would be very interesting as no one seems to know much about them. If I go with him and we get a release I will send you some information. Hoping your dues are paid, etc., etc., will close.

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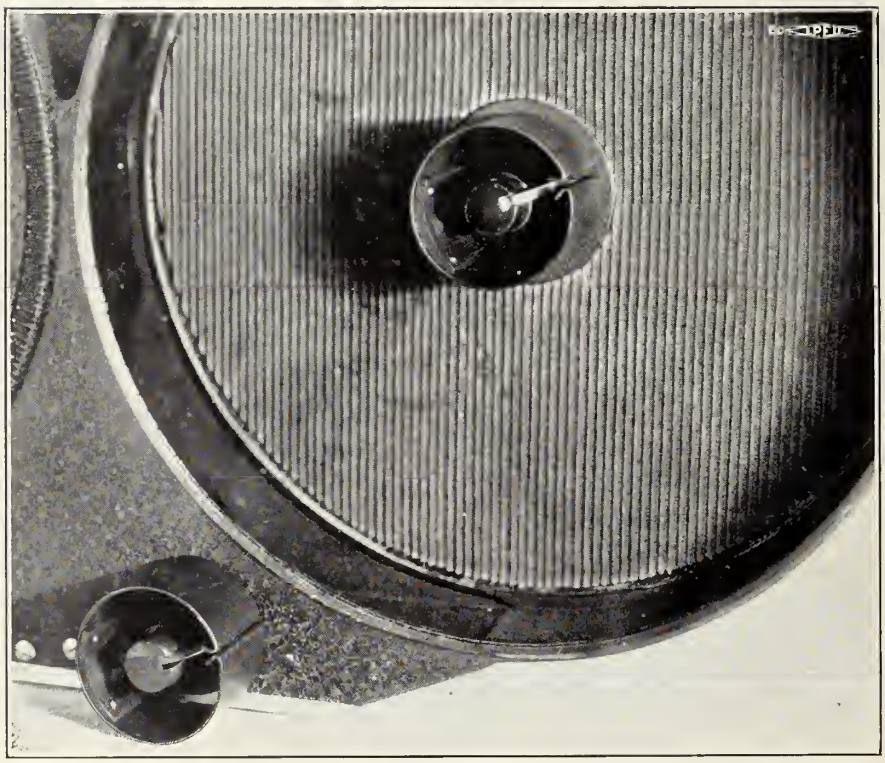
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Official Bulletin of the International Photographers of the Motion Picture Industries, Local No. 659, of the International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators of the United States and Canada.

Affiliated with Los Angeles Amusement Federation, California State Theatrical Federation, California State Federation of Labor, American Federation of Labor, and Federated Voters of the Los Angeles Amusement Organizations.

Vol. 1 HOLLYWOOD, CALIFORNIA, DECEMBER, 1929 No. 11

"Capital is the fruit of labor, and could not exist if labor had not first existed. Labor, therefore, deserves much the higher consideration."—Abraham Lincoln.

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The International Photographer published monthly by Local No. 659, I. A. T. S. E. and M. P. M. O. of the United States and Canada

Howard E. Hurd, *Publisher's Agent*

Silas Edgar Snyder - - - - *Editor-in-Chief* Ira B. Hoke - - - - - - - *Associate Editor*
Lewis W. Physioc - - - - - *Technical Editor* Arthur Reeves - - - - *Advertising Manager*
Charles P. Boyle - - - - - - - - *Treasurer*

Entered as third class matter February 13, 1929, at the Post Office at Los Angeles, California, under the provisions of Section 435½ Postal Laws and Regulations. Permit No. 1997

Subscription Rates—United States and Canada, $2.00 per year. Single copies, 25 cents

Office of publication, 1605 North Cahuenga Avenue, Hollywood, California. HEmpstead 1128

The members of this Local, together with those of our sister Locals, No. 644 in New York, No. 666 in Chicago, and No. 665 in Toronto, represent the entire personnel of photographers now engaged in professional production of motion pictures in the United States and Canada. This condition renders The International Photographer a voice of an *Entire Craft,* covering a field that reaches from coast to coast across the nation.

Printed in the U. S. A. at Hollywood, California



THE OLD MOTION PICTURE SET ACROSS THE LAKE LENDS A CHARMING AND UNUSUAL TOUCH TO THIS LOVELY NATURE STUDY BY KARL STRUSS

Projection Advisory Council Luncheon

President William F. Canavan's master ly address on Projection herewith in full

On Thursday, November 14, at the Hotel Astor, New York City, a luncheon was given by the Projection Advisory Council to representatives of the Trade and Public Press, the feature of which was an address by William F. Canavan, the guest of honor.



WILLIAM F. CANAVAN
President of the I. A. T. S. E. and M. P. M. O. of United States and Canada.

Charles F. Eichorn, vice-president of Local 306 of the I. A. T. S. E. and M. P. M. O., chairman of the Projection Advisory Council Luncheon Committee, was in the chair and opened the proceedings with the following brief statement:

"We are not here today for self-glorification, nor are we here for alibies and apologies. Based upon the motto of the Projection Advisory Council, "Progress Through Understanding," we feel that by getting better acquainted perhaps we will get a little bit better break from those who write about and comment on motion picture projection. We wish to be as brief and informal as possible, and the luncheon will be divided into two sections. An address and an open forum. As part of my own introduction however, I am going to call upon Mr. McGuire, who is very largely responsible for the formation of the Council, to make a brief statement to you."

Mr. McGuire spoke as follows:

"I should like to tell you something about the plans and purposes of the Projection Advisory Council, and the record of its accomplishment since it was organized one year ago. I hesitate however, to take one moment unnecessarily from the particular purpose of this occasion.

"That purpose is to secure a greater realization of the importance of good projection and a better understanding of the problems of the projectionist. Back of the artistic side of the motion picture industry is a vast technical field, which presents infinite opportunities for flaws and failures in the effort to develop the illusion of life by mechanical means. All this work comes to the projectionist for final delivery to the public, and he is too often unjustly blamed for mechanical defects. That attitude has become almost a tradition of the industry and the time has come to modify it."

"This luncheon," said Chairman Eichorn, "is the first public meeting the Projection Advisory Council has held, and is a unique event in the motion picture industry. We are therefore particularly fortunate in having as speaker, one of America's outstanding labor leaders, executive head of an organization, which is an important part of the American Federation of Labor. He has our affection and respect and the confidence of the entire motion picture industry. I take great pleasure in introducing, the International President of the International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators, William F. Canavan."

William F. Canavan, international president of the International Alliance of Theatrical Stage Employees and Moving Picture Machine Operators, delivered the following address, which was received with enthusiastic applause:

"In attempting a discussion of the importance of motion picture projection, one who has been intimately associated with this particular branch of the motion picture industry for many years may be charged with over enthusiasm. It is not, however, my purpose to over-emphasize the relative importance of projection and the projectionist to this great industry of which we are a part. Rather do I seek to dispel the popular misconception of a great number of people who through lack of information and understanding of the subject fail to realize the true importance and significance of the mechanical presentation of the motion picture.

"To those of us who have a personal interest in this particular subject, there is great satisfaction when we visualize the tremendous strides that have recently been made in the development of projection room practices and equipment. These recent developments have been of signal importance to the millions of patrons of the justly popular motion picture entertainment, and have given a new impetus to one of America's greatest industries. Some one has well said, 'This is the age of Electrical Entertainment.' The vast patronage with which the motion picture theaters have been favored is the greatest assurance that these technical and mechanical developments have found instant public favor, and that developments of similar character will be received with like satisfaction by the general theatergoing public. The world's greatest research laboratories, presided over by the outstanding scientific and mechanical geniuses of our times are at the present moment bending every effort toward the development and perfection of the mechanical side of the motion picture art. Already we have ample asurances of the perfection of third dimension projection, which will shortly be the vogue throughout the entire motion picture industry. The mechanical development of projection equipment and projection practices is unquestionably destined to play the greatest part in the future development of the motion picture industry.

"With the com ing of these vast changes in projection room practices and equipment, the members of the projectionists local unions throughout the United States and Canada are fully alive to the great responsibilities that will devolve upon them and are preparing themselves by intensive training and study, to meet the changed and changing conditions in projection problems, come what may. The theatergoing public, to whom the motion picture theater has come to be an indispensable necessity, and those who have hundreds of millions of dollars invested in this truly marvelous industry, need have no concern regarding the ability of the projectionists to cope with the new projection problems. To the everlasting credit of the projectionist, it can be said that he never shirks his responsibilities. New projection room equipment, no matter how complicated it may be, is always a welcome addition to the projection room, even though past experience clearly indicates to him that laboratory developed equipment brings with it trouble, added worry and more work. The projectionist is more of an idealist than a working man. He looks upon motion picture projection as a 'Specialized Art' and is ever-striving to improve the quality of screen entertainment even though it entails a personal sacrifice. The consciousness that the success or failure of the entire screen performance is dependent upon his skill and its application in the handling of the delicate projection equipment, has a natural tendency to keenly arouse him to sense the great responsibility of his profession. He approaches his task, not from the standpoint of a worker who is to receive a monetary consideration in the form of wages for a given number of hours of service, but rather from the standpoint of an artist, mechanically etching upon the silver screen a series of beautiful photographic images that are unfolding to his movie audience a visual impression of a beautiful story told with the aid of his mechanical pen. And at the same time he deftly manipulates the projection sound equipment in a manner so as to give proper modulation to the spoken voice in synchronism with the photographic images, so that the illusion of actually giving life and voice to his story book characters may be complete.

"The introduction of sound presented a series of problems that were entirely new to the projection field.

To begin with, the sound equipment had only been subjected to superficial laboratory tests prior to its installation in the theatre. These tests had been conducted under uniform and ideal conditions, by technicians who had developed a pace with the sound equipment.

"But theaters could not be reconstructed so as to make them ideal for the new sound installations. The physical conditions obtaining in many of the theaters were such that it was next to impossible to achieve the desired results. Each installation presented its own particular problems that could only be solved after subjection to practical tests. That the original installations of projection equipment, for the reproduction and amplifi-

cation of sound were far from perfect, is not difficult to understand.

"After the installation was made, the responsibility of operating and maintaining the sound equipment became the duty of the projectionist who had little or no knowledge of the complicated device, aside from a few hours of operating instruction.

"This unfamiliarity was not due to his indifference. There had been no opportunity to secure the technical information necessary or to prepare himself for this new responsibility. From the outset it was apparent there would be trouble. Many changes had to be made, before the sound equipment measured up to the exacting exhibition requirements of the modern motion picture theater. The projectionists who pioneered the introduction of sound have every right to feel a great satisfaction in the contribution they have made in the development of this epochal achievement. I feel one may safely say that the problems arising through the introduction of sound were far and away the most difficult with which projection room staffs had ever been confronted.

"The men who have solved the problems in a practical and hgihly satisfactory manner are to be congratulated. They are deserving of the highest commendation from the entire motion picture industry for this splendid service.

"The audience cannot be expected to appreciate the painstaking efforts incorporated into the work of the projectionist in attempting to present for their edification and enjoyment a faultless screen performance. How are they to know of the projection problems that are to be overcome in producing the screen results which they expect and demand? They have no means of knowing that at each performance more than ten thousand feet of delicate celluloise film of a highly inflammable nature is being driven through the intricate steel projection mechanisms at a tremendous rate of speed and that this operation is repeated as often as eight times in a single day. Would it matter if they were to know of the intense heat to which the delicate film is subjected in passing before the concentrated light rays and of the inevitbale consequences that would follow even a momentary stoppage of the film under such conditions. How are they to arrive at an understanding of the constant care and attention necessary on the part of the projectionist in caring for the equipment so there may be no interruption in the performance? It seems to me that a proper appreciation of the work of the projectionist by the theater patron, and by others who should be better informed, will not be forthcoming until we have succeeded in dispelling the popular misconception that the duties of the projection room staff are to operate and care for electrical and mechanical devices which are automatic in operation and require but scant attention.

"No attempt will be made by me to stress the mechanical ability of the capable projectionist. Neither shall I dwell upon the requisite understanding of electrical phenomena which is indispensable to the solution of projection room problems. Of his familiarity with the principles of optics I shall only say that without this knowledge, the splendid image definition which is characteristic of the finished screen performance would be impossible of attainment and the beautiful photographic results of the consummate skill of the cameramen would be wasted.

"It is true, of course, that an able projectionist must be a good mechanic, but it does not naturally follow that a good mechanic would be an able projectionist. My impression of the matter is that real showmanship is one of the most essential qualities for the real projectionist. He must be show-minded in all that the term implies, with a background of theatrical experience which will imbue him with that inherent theatrical spirit, 'The Show Must Go On,' no matter what may happen. No amount of academic training could possibly produce an outstanding projectionist. The essentials for good projection are not to be learned out of books alone. True, the theoretic approach will be of value to the novice and will be highly beneficial to the experienced projectionist; no man ever lived who knew as much as he ought to know. When any man reaches a point where he imagines he has all the knowledge he should have, it is a certain indication of his need of it.

"Physical conditions in the construction of a theater necessitate locating the projection room at some point remote from easy access. It seldom has visitors. In-

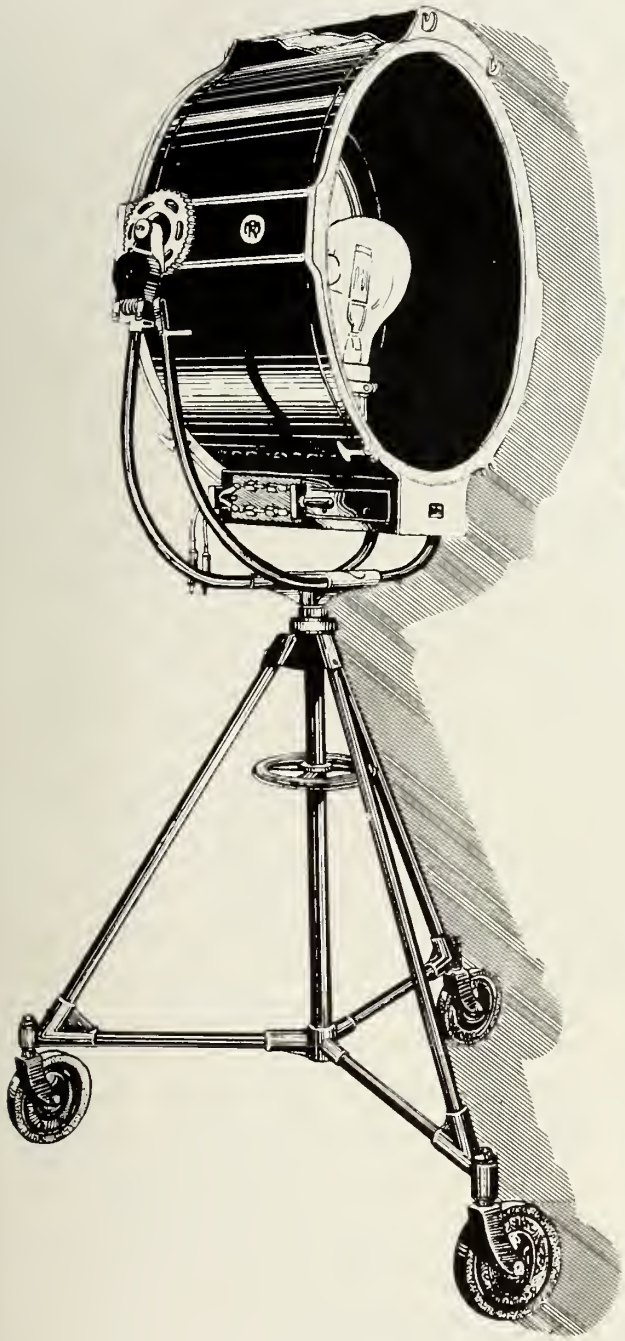
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deed, the larger theaters are strict in enforcement of the rule forbidding visitors in the projection room. In a good many cities there are ordinances which forbid any but a licensed projectionist from entering. As a result the projection room is a sort of mystery place little known to the average person. The projectionists live a hermit's existence while on duty and find their time well occupied, especially so since the advent of the audible film which requires constant care and attention. When sound is recorded on disk, the projectionist must be constantly apprehensive of mishaps for the reason that once the film and recorded disk are out of syncronization, the performance is utterly ruined, as there is no method that has been devised to re-synchronize the disk and film. No mishap occurring in the projection room causes the consternation that is occasioned when disk and film are not in synchronization. Some time the projectionists are at fault, but as a general rule the fault lies in some defect in the film, the disk, or the mechanical attachment. It is to be expected that the projectionist will be blamed for any mishap which may occur, especially by the audience. In the many years that I have been connected with the theater, I have never witnessed any mishap which so thoroughly irritates the audience as does an interruption in the showing of a sound subject. Under such a condition the audience becomes furious and gives the full expression to its feelings in no uncertain manner.

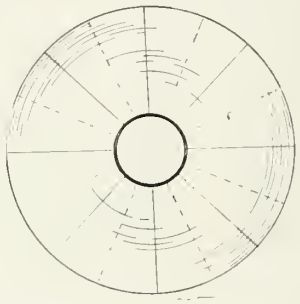
"Not so long ago the entire projection room equipment for the finest theater could have been purchased at a cost of less than $5,000.00, while today equipment suitable for present day needs may reach a cost of $50,000.00. This latter sum would, a few years ago, have been sufficient to pay the entire cost of building and equipping throughout, an entire theater of goodly proportions. It is a pleasure to note that the better class of theaters have at last come to a realization of the importance of the projection room and are furnishing adequate and modern projectors and equipment, which enables the projectionist to produce proper screen results. It is to be regretted that many theaters are still using inadequate and antiquated equipment. Good projection requires good projectors. Poor screen results will do more to injure a theater's reputation and patronage than any other single factor. Bad projection and good business are never companions. Show me a theater where proper projection standards are not maintained, and I will show you a theater where business is in the same category as its projection.

"In closing, may I not express the hope that, in the not far distant future, there may be a better understanding and appreciation on the part of motion picture audiences of projection and its importance in presenting and emphasizing the visual and audible artistry of the production staff that has been so painstakingly incorporated into the production by the director, the cameraman, the actor and the technician. A proper understanding of 'Projection, A Specialized Art,' will add immeasurably to one's appreciation and enjoyment of the performance. I want to caution all of you who are projectionists against ever being satisfied with projection mediocrity. There is always room for improvement, no matter what has been accomplished. Perfection in projection has not been achieved, irrespective of the splendid progress that has been made. Let all of us who are interested in the advancement of the science of motion picture projection rededicate our purposes to the continuance of the struggle for better projection, a struggle not rooted in selfishness; an effort not in the interest of personal gain, but a contribution to the motion picture industry through co-operation and good will. Let us spare no effort to enhance the value of the motion picture as an art by earnestly and constantly striving for greater appreciation of motion picture entertainment through the application of the scientific principles and practices which produce the highest standards of motion picture projection, thus giving increased pleasure and satisfaction to the millions of motion picture patrons, whose good will and patronage are indispensable to the future development and permanence of the entire motion picture industry."

Hot Points

Conducted by MAURICE KAINS

It is a good idea to make about six cuts one-sixteenth of an inch in depth on each side of your roll of adhesive tape with a razor blade as illustrated.



Heavy lines show radial cuts. Dotted lines represent similar cuts on opposite side of roll.

A roll of tape so sliced will not fray on the edges, and it may be torn very easily at any length you may desire.

* * *

Do you know that there is nothing better for cleaning the glass of your camera booth than a chamois skin slightly dampened with clean water?

* * *

Do you know that you can work in the most fly-infested exterior location without being annoyed by the insects gathering on the window of your camera booth? Ira Hoke takes credit for this one. Cut Tanglefoot sticky flypaper into strips about one-half inch wide and as long as the full length of the sheet (about 15 inches). The paper should be placed flat at the base of the window, with one edge touching the glass. Flies have a habit of bouncing up and down the booth window. Tanglefoot quickly settles such acrobatics. Spots of wax smearing onto the window may be easily cleaned with a cloth moistened with motor ether.

It is a good idea for assistant cameramen to place a tiny peep-hole through the center of the slate or focussing card that he may watch his camerman's signals from the booth without endangering his eyesight by arc or mazda glare. The signals from the inside of the booth are easier to see also. Such a hole in a slate may be used to hang the board on the outside of the booth, where it will be out of the way and serve as an identification of the cameraman working within.

* * *

Did you know that if you use a white bristle brush, instead of one with black bristles, for cleaning the inside of the camera that it will be easier to detect the presence of lost bristles on the working parts of the camera. The brush can be stiffened if necessary by wrapping adhesive tape around the base of the bristles. This also prevents the outside bristles from breaking. The brush should be washed out occasionally with soap and water, gasoline, or ether.

* * *

The "Hot Points" editor will be glad to print any camera kinks which you have found helpful or interesting in your work. Mail your contribution to Maurice Kains, care of **The International Photographer.**

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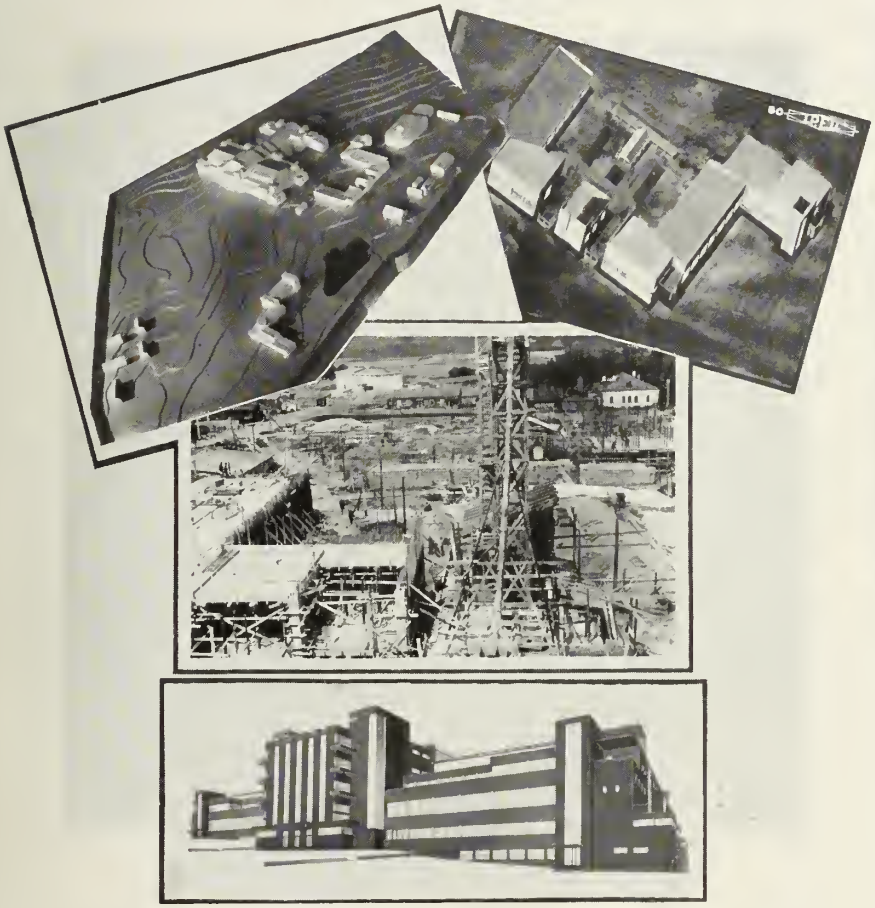
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Russian Studio Builds

BY

ANATOLE DANASHEW



Top left—General view of Sovkino studio lot. Top right—Main stages. Center—Buildings under construction. Front elevation of stages

When Mary Pickford and Douglas Fairbanks visited Soviet Russia a few years ago they were shown, while there, a splendid view of Moscow from one of the hills some four versts outside of that city. These hills, a group called Vorobiovy Gory or more popularily known as Lenin's Hills, were then just part of the beautiful country where the people would come and spend a quiet holiday by the Moscow river while now they are the center of great activity.

This change is being made in picturesque Lenin's Hills to provide Soviet Russia with one of the finest motion picture plants in the most perfect location possible. One hundred and fifty acres on and about Lenin's Hills are now under construction. The buildings being erected are: The main studio, the carpenter and machine shops, the administration building, two laboratories (one for negatives and dailies, the other for production only) four buildings containing cutting rooms with vaults in each for negatives and positive film, a water station and a garage for forty cars and power trucks. A power station for 25,000 amperes D. C. is being built while an additional 25,000 amperes A. C. will be received direct from the city line. All equipment will be of the latest up to date order.

The main studio covers approximately 175,000 cubic meters and has a clear floor of 4800 square meters with the offices for the working staff, such as the directors, art directors and cameramen, the dressing rooms, rooms for lighting apparatus, the wardrobe, make up shops, etc., encircling it. The clear floor of this main studio can be divided into five stages by four movable walls thus allowing five different companies to work at the same time without interfering with each other. Then there is a plunge 200 square meters in size and 3 meters deep for water scenes and also a revolving stage 18 meters in diameter. The height of the studio is, partly, 17 meters and, partly, 23 meters to the ceiling. This studio is now ready for equipment.

The erection of all these buildings is being hastened by the use of three shifts of workmen working day and night. Most of the main studio and many of the other buildings will be entirely complete, equipped and ready for use by late fall of this year, while the rest will not be finished until next summer.

At present plans are being worked upon for another studio which will be built in the near future and will be for sound pictures only.



The handsome Viking who looks at you from the accompanying picture is none else than Henry Kruse. Mitt him.

Brother Kruse is one of those who believes in Local 659 and also in the Local's magazine, THE INTERNATIONAL PHOTOGRAPHER.

"By serving well we fit ourselves to govern," is the rule of conduct of Henry Kruse, and his war cry is: "If you want 'em, go get 'em," and so, like his world-famous forekin, Lief Ericson, Eric the Red, Knute, Hengist and Horsa and a lot of those other sea kings of days gone by who fared forth and got what they wanted, our Henry hoists THE INTERNATIONAL PHOTOGRAPHER as his banner and goes forth to get subscribers.

Does he get them?

You'd be surprised.

His first shot on a dull day was fifty signed, sealed and paid in cash.

Henry has a style peculiarly his own. When his duties are not pressing he takes his magazine and just casually meets Smith, Jones and Brown. "Just a minute," says Henry. "Before the panic in the stock market goes any further you'll want to be sure of having a supply of reading matter. This is it. Sorry I've kept you waiting. I intended to see you last week. I've got the change right here and here's my fountain pen. Thanks. Don't forget to renew next year!" And on to the next propect; and to Henry everybody is a prospect.

He's a great boy, is Henry Kruse and the Board of Executives and the editors are proud of him and herewith formally congratulate and thank him.

And Henry's just getting started. He is out to clean up the industry.

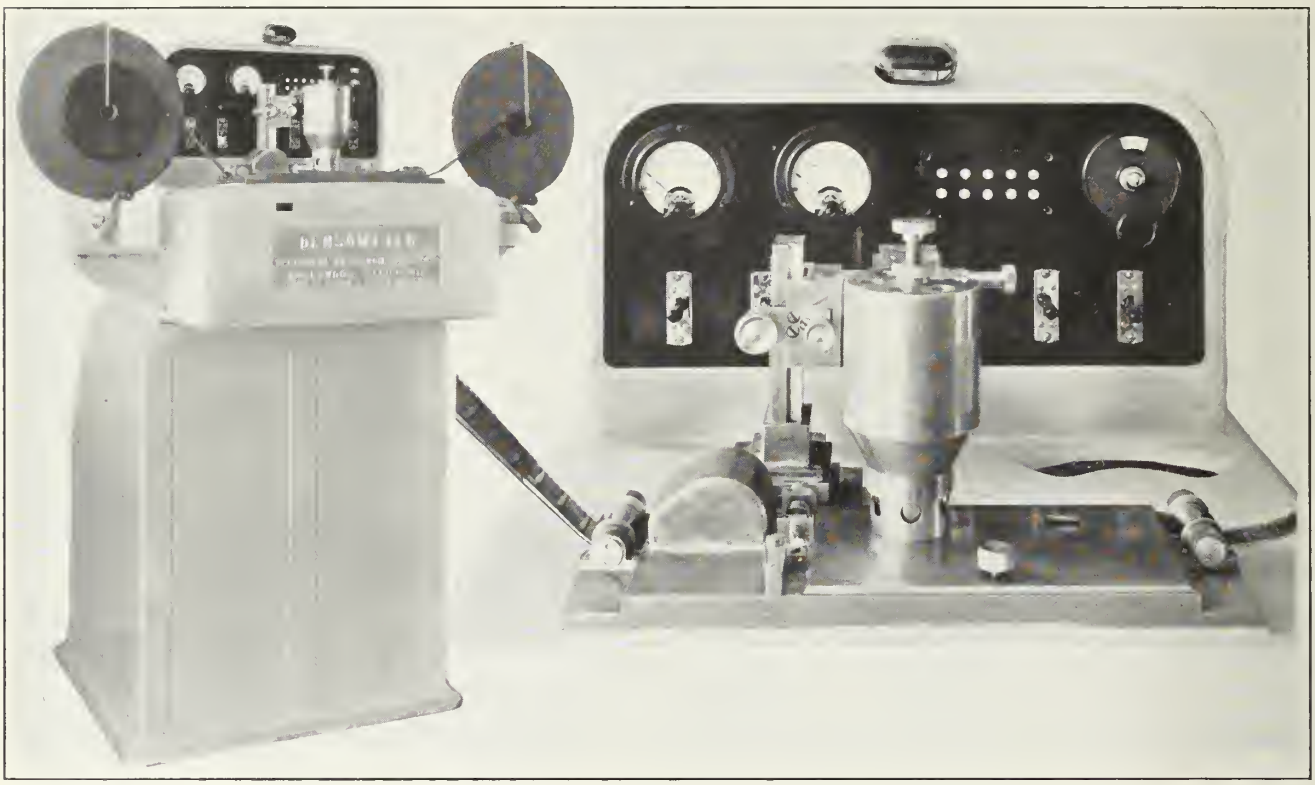
Also he is not alone. Many other boys are taking an active interest in building up the circulation of THE INTERNATIONAL PHOTOGRAPHER and our objective of 30,000 will some day be attained when our affiliated organizations get into action in full swing.

Hurrah for the Vikings!

The Densometer an Automatic Timer

BY

THE EDITOR



An announcement of considerable importance to the Motion Picture Technical workers is made by the Technical Research Manufacturing Corporation, an organization devoted to the research of problems encountered in the photographing, developing and projection of pictures from the film where the light element has played such an erratic part. The technicians of this company need no introduction to the studio end of the picture business, as Mr. Lewis W. Physioc's long years of experience with the artistic as well as the scientific avenues of the industry, coupled with the research ability of Mr. Delmar A. Whitson, whose pioneer experiments with the sound-track application covering a period of over fifteen years, have produced a team of no small ability and recognition.

The Densometer, which is the subject matter of this announcement, is the refined product of several prior models which were developed to eliminate the human element of judgment where the averaging of film density is now required, and for saving the extra time and material to make the test strips.

In order to immediately identify the place and purpose of this machine in the lab, the company states that the Densometer absolutely and completely eliminates the necessity of numbered test strips which are now employed, effecting at the outset a saving of the time in processing and the material of such strips and, especially, the ensuing cost incidental to errors arising from the human judgment of density which is no small consideration as every lab man will recognize.

In passing upon the ability of the human eye in this respect it is interesting to review what Mr. James L. McCoy, of the Westinghouse Lamp Co., has to say in a recent issue of the *"International Photographers Bulletin."* "The unassisted eye at its best is considered unstable with a possible error of 100 per cent or more from day to day when used as a light intensity measuring instrument. It is unreasonable to expect that two or more men would come very close in a simultaneous check."

Corroborating the above statement of Mr. McCoy's, it has been the experience of Messrs. Whitson and Physioc in checking up on the ability of the men employed in this capacity, where a certain degree of skill should obtain, that they were unable to check back on their figures from the test strips—that is, ten or fifteen test strips were employed and numbered consecutively, and the optical readings of the operator were taken and marked down, and after a sufficient time had elapsed for the memory to fatigue a repeat check was made by the same operator with the original strips and an error as high as 50 per cent was obtained while he believed that he was exercising his soundest judgment; which is another but at present unavoidable reason for density arguments, and unsatisfactory prints.

Whereas an indefinite number of runs have been made on the Densometer with the same series of scenes and a 100 per cent cheeck was obtained, and that repeated from day to day. In fact the machine is the first constructive step to be practically taken to install a reference system of light units which can be accepted as a standard by the entire picture industry the same as exists with the petroleum industry with their scientific index; the electrical industry with their universal reference units or for that matter in every industry which the reader may name for himself excepting the motion picture industry which has suffered from the lack of such a standard. In fact it is to the picture industry what the micrometer is to the machinist, without which he would have to use the "thumb rule" and is what precisely obtains today in the laboratory—the "thumb rule."

And this machine is dedicated to just such a need for improved efficiency. It is needless to say that the machine is electrical in principle and has been corrected and integrated to follow a visibility curve reading directly in printer lights, from a moving needle indicator. As has been stated in the first part of this article the Densometer which is now being announced is the third working model built, which the company declare to be their production type model and which embraces important improvements which have been suggested by prior experience and represents a high degree of refinement. The machine is equipped with a footage counter which indicates

It gives you just the panchromatic quality you want in your "stills"

The New Eastman Portrait Panchromatic Film

It has brilliance, but with it, the gradation which picks up a long scale of tones. It has speed, but also the fine grain so essential for enlarging. And it has the latitude that permits of variation in exposure without loss of quality—in short, it pairs up with Eastman Cine Panchromatic for uniformly high quality. One trial will make you want more Portrait Panchromatic results.

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

the amount of footage run through the test track whether right or left and can not be run or used without affecting said counter.

It is also equipped with an electro-magnetic scene counter and buzzer signal enabling the operator to instantly check his progress without the costly mistake of giving the right numbers to the wrong scenes, and the buzzer is additionally provided as a warning. A set of meters is provided to indicate at all times the exact condition of the current supply, and former errors due to changing contact resistance in the rheostats have been precluded by the construction of a step by step plug and segment control such as employed by the manufacturers of precision measuring resistance boxes where the highest degree of accuracy is required.

In keeping with these considerations the instrument has been machined with the precision of a standard camera movement and heavily chrome plated where subject to handling or friction. Every suggestion for fool-proofing and efficiency has been embraced in this last model, making for the greatest of ease in operation and requiring no degree of ability on the operator's part. It will effect an attractive saving in the laboratory and its time saving feature should make additional appeal to the studios along with its more uniform density product.

Following are some of the features of the device:

No waste of film in making preliminary test.

Saves that time necessary to develop, dry and read these tests.

Makes the negatives available for printing hours sooner than present system permits.

Eliminates guess work and faulty judgment.

Will furnish an absolute standard and enable the "lab" to adhere to that standard.

Can indicate accurately how this standand may be modified to suit the tastes of discriminating cameramen, where more softness or contrast is desired.

Will time a sound track (especially the variable density type) very accurately and furnish a means of checking the development "gamma" upon which good recording so much depends which is impossible to do at present .

In night shots and special effects if such scenes are properly exposed the machine will give a proportionae density of print.

In scenes on exteriors having a broad area of sky the machine provides for a selection of that portion of the picture most desired, such as close ups and the desired areas of the long shots.

Running shots where there is a change of exposure from one point to another or a change of speed the device will indicate every variation and the proper portion selected for printing, obviating the errors that frequently occur, in the present system, when the wrong part is chosen for testing.

Where a title is a single word surrounded by a large area of almost clear celluloid, the test track is provided with a compensating screen that brings such titles within the proper printing range.

The calibration can be independently set for softer or harder prints, both the denser or thinner negatives receiving the increase or decrease of light in the proper ratio, an improvement over the present system where the printing lights are merely added or subtracted by a number of points dictated by judgment; the error being, by the old method, that the dense negatives may not receive enough additional light and the thin ones too much.

The Densometer is equipped with a quick change-over lever from the picture aperture to the sound track or vice versa. It is fitted as referred to before in this article with every control and adjustment for simple and easy handling which enables the operator to maintain all the conditions, check them frequently and secure an absolute standard at all times.

More specific information may be had or a demonstration arranged for by addressing the secretary of the above corporation, Mr. Thomas Shields, Suite 1001 Great Republic Life Building, 756 South Spring Street, Los Angeles, California.

The construction of these machines, by the most exacting specifications, is being done by the Barsam & Tollar Mechanical Works, 7239 Santa Monica boulevard.

o

HUGHES OWNS CAFE

Bill Hughes, of Local 37, has branched out with a neat little restaurant at 6208 Lankershim Boulevard. Mrs. Hughes is responsible for the real home cooking and serves a chicken dinner every Sunday.



Lois Moran and George O'Brien in "Blindfold," a William Fox Production

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Electrical energy makes light . . . it also makes heat. Electrical energy is concentrated and intensified at the tips of National Photographic Carbons. A large percentage of power is utilized in these carbons to produce strong, penetrating light. Heat waste is minimized. Power costs reduced. Concentration prevents heat from diffusing rapidly into the surrounding atmosphere. *This means that National Photographic Carbons burn cooler because they transform electrical energy into light with a minimum development of heat.* That's why these carbons give more light per watt! Check up any production that's being shot. You'll find National Photographic Carbons are using less current per candle-power than any other form of studio lighting.

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PICTORIALISTS AND STILL MEN TAKE NOTICE

In this December issue of THE INTERNATIONAL PHOTOGRAPHER the editor presents the work of a few of Local 659's prominent pictorialists in the form of an insert.

As the decision to make a picture book of this edition of our magazine was made right at the deadline it was impossible to make a call upon all our still and pictorial artists to submit material and it was mandatory therefore, to utilize the pictures on hand—pictures that some of our thoughtful members had left on file in our morgue for use in emergency.

But no member will be over looked. As the months go by the editors plan to use more and more art—as much as our budget will allow, for it is our purpose to tell the world about our pictorialists and to sound their praises in the high places.

Beginning with our issue of January, 1930, the editor of THE INTERNATIONAL PHOTOGRAPHER personally will offer a prize of $100 for the best picture published in our magazine during that year.

In addition to this the magazine will make an award of $5 per month for the best production still submitted and there will be additional prizes of I. A. T. S. E. membership rings.

Arrangements for judging, together with greater details will be published in the January issue of THE INTERNATIONAL PHOTOGRAPHER.

Now come on with your pretty pictures.

—o—

MUSIC HATH CHARM

This life size shot of a humming bird at its nest was taken by Buddy Longworth on First National lot at Burbank. The nest is near the play-back stage where the music records are tried out and as Buddy passed the spot very often he took note of the bird as it sat oblivious



of his presence and of all the studio activity going on around him, apparently lost in the enchantment of the music. Buddy set up his camera within three feet of the little fellow and he never fluttered a feather. His favorite music seemed to be that of "Sally" and "No, No, Nanette."



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PERRY EVANS
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On Christmas day 1949



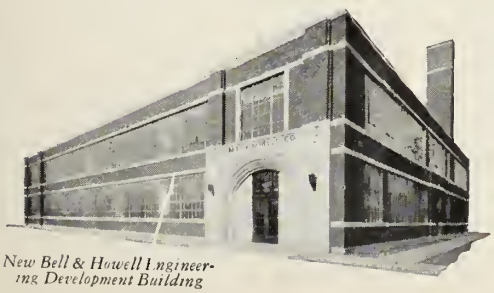
Twenty Christmases ago, the early products of a handful of film producers formed the main holiday treat of a very few thousand theater-goers. What kind of movies these patrons saw is now a kind of ancient history.

Christmas Day, 1949, will see a progress fully as striking as that represented in the movies which fifteen-odd million persons in 1929's Christmas audiences will enjoy.

In tomorrow's films, as they are in today's and were in yesterday's, the major technical advances are destined to bear the stamp of the Bell & Howell Engineering Development Laboratories. For they will be advances made possible of achievement by the tremendous technical resources accumulated by Bell & Howell during its 23 years of leadership in this industry.

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A COLOR PROCESS ESPECIALLY ADAPTED TO PRESENT NEEDS

The Super Simplex

BY

SIDNEY BURTON, *President of the American Projection Society, California Chapter No. 7*

The motion picture industry is at the present time passing through a period of uncertainty. With the coming of such inventions as sound, natural color, wide film and sterescopic pictures, manufacturers of machines and producers of pictures are casting sidelong glances at each other trying to read one another's mind in an effort to convince themselves which form of entertainment to present to the movie going public. Sound now holds sway and as far as anyone can see by all indications, will continue to do so for some time to come. Nevertheless, there is that breathless anticipation of what the future may bring. Television is now an established fact and it may very soon, effect many changes in the motion picture industry. The feverish pace set by these changes has caused the manufacturers of motion picture equipment no little discomfort and as a result the International Projector Corporation has brought forth the Super Simplex.



SIDNEY BURTON

It was a privilege of the writer to be invited to inspect these wonderful machines which were installed recently by the Eastman Kodak Company at 6706 Santa Monica Blvd., Hollywood. The Eastman Kodak Company maintains a sound review room and the use of it is gratis to the entire industry for any use from reviewing to research. It is necessary, for the critical audiences that come to Eastman's, for shows to be projected to the very best advantage. This fact alone speaks well for the Super Simplex as it has replaced the equipment of another manufacturer.

After a thorough inspection of these machines it may be well to enumerate some of the new features as they were pointed out through the courtesy of Mr. G. W. Watson, who is the projectionist in charge at Eastman's.

The most outstanding addition which is evident at first glance is the revolving shutter that is placed between the lamp and the cooling plate instead of its former position in front of the lens. This shutter consists of two separate components, each having two blades. The blades resemble those of an ordinary electric fan, with the exception that they have a saw-tooth effect along their edges. These saw-tooth projections are about one half inch long. The entire shutter is encased in a protective covering so the projectionist cannot be injured by the revolving blades. The position in which it is placed reduces the heat at the cooling plate. In fact it was pointed out that after running a reel the fingers could be placed on the cooling plate and could be held there indefinitely. It can be seen by this demonstration that the shutter being in this position serves many valuable purposes. First, it reduces the fire hazard. Many fires have been started by film, during the threading process, touching an overheated cooling plate. Second, it lengthens the life of film by protecting it from the excessive heat of the arc lamp. In doing this the film retains its natural moisture and thereby reduces buckling of film and splices, which ordinarily occurs when being subjected to extreme heat.

As we glance at the operating side of the machine we see three levers directly in front of the revolving shutter. The levers are at right angles to the old style framing lever and instead of being placed in a front to back position they run straight across the back of the head with the handles almost even with the face of the projectionist. As we turn the top handle to the left the gate is opened. No more burning the finger tips to open the gate. The second handle is the framing lever. Framing is accomplished by rotating this handle either way. The third protruding handle is used to retime the revolving shutter.

As we continue still further forward we see a small set screw on the cooling plate which, when loosened with the fingers, allows the aperture plate to be moved up and down. This machine has two apertures made in one piece. One for Movietone, the other for standard film. Either one can be used by simply moving the whole plate up or down.

When using the Movietone aperture and we desire to center the picture on the screen we need only release a lock on the side of the head and throw over another lever on the front of the machine and the lens is shifted the proper distance off center, and our picture is centered on the screen. It takes less time to perform this operation than it does to tell about it. After the lens is shifted the lens lock is again applied and there is no cause to worry about the lens moving unless the lock is released.

To hold the lens securely in the barrel a new lens lock has been devised instead of the small screw of the early models. The focusing of the lens is done with the aid of another handle which projects from the front of the mechanism and is rotated one way or the other.

Another fine feature of this machine is the accessibility for oiling its various parts. Oil tubes have been provided throughout and the whole mechanism can be oiled in about two minutes.

Many more valuable improvements have been placed on this machine and a glance at it convinces one of its massive, sturdy construction. It is truly a Super Simplex and International Projector Corporation is to be congratulated for its perfection.

SOUND REPRODUCTION EQUIPMENT IN EASTMAN KODAK COMPANY HOLLYWOOD PLANT.

The first of the new type to be installed on the Pacific Coast. By P. B. Almquist.

The Sound Reproducing Equipment at the Eastman Kodak Company's building, in Hollywood, is the type of Western Electric System particularly adapted to small auditoriums used for review purposes. This particular installation incorporates all of the latest improvements necessary for the best sound reproduction, also a number of special features which are not used in regular theater equipments.

The two projection machines are the Universal Base Type equipped with the new type Super Simplex Projection Heads and provide for sound reproduction from both film and disc records. Completed sound pictures ready for release can, therefore, be shown as in a theater. Prior to the release of a picture however, at the time when it is necessary to review the picture in its various stages of completion, it is often convenient to provide the sound record on a separate film instead of on the same print as the picture or on a disc record.

This requires what is known as double film projection, involving the use of two projection machines operating in synchronism, one for the sound track and the other for the picture. For this purpose, the electrical interlock system used in studios for maintaining synchronism between the motors driving the cameras and sound recording machines is used. Instead of the standard motor drive and control box, a wound rotor induction motor is used as a direct drive for each Universal Base machine. These motors are in turn electrically driven and controlled by a master motor of the same type, known as a distributor. Starting torque and speed control for the distributor is obtained by means of a direct connected motor and associated control box. Two such distributor sets with suitable switching devices are prvoided, either of which may be used for operating the projectors, either singly or together in sychronism.

The amplifier used in reproduction is the small box type, the output of which is directly connected to horns behind the screen. This amplifier, the switching panels and battery boxes occupy a minimum of space on the rear wall of the projection room.

The Review Auditorium contains a special control desk, conveniently located in the rear corner. The equipment in this desk not only provides communication with the projectionist, but also permits the transfer of the sound reproduction controls to the auditorium. Faders, with suitable switching devices, make it possi-

(Continued on Page 19)



Left to right—Ernest Miller, Joe Novak, Elmer Dyer, the "Three Troopers" photographing "Troopers Three"

ON TO AFRICA

Richard W. Maedler, of Local 644, left November 14 on the S. S. Roma for an eighteen months trip to British East Africa to photograph sound pictures of the jungles for Fox-Hearst Corp.

The trip will include stops at Genoa and Naples, Italy, and Port Said, Egypt, where he will join Mr. and Mrs. Martin Johnson. Then through the Red Sea and Gulf of Aden to Mombassa, British East Africa.

There the party will entrain for Nairobi, where the railroad ends, and the journey will be continued by safari into the big game country. The pictures will be released through Hearst Metrotone News.

GRANDEUR NEWS

J. O. Taylor is in full charge of all experimental and production work done with the Fox Grandeur Camera. Keith Weeks evidently thought that Taylor was cut out for bigger and brighter things when he gave him the assignment.

David Ragin, a veteran Fox cameraman, is associated with Taylor as second in the Grandeur Camera department. They are at present shooting "New Orleans Frolic," a 100 per cent Grandeur. Harry Marsh and H. C. Smith are assisting.

OUR DECEMBER COVER

The December issue of THE INTERNATIONAL PHOTOGRAPHER presents a front cover from the combined photographic efforts of Brothers Enrique Vallejo and Walter Van Rossem. The picture is built up of two old prints from the library of Mr. Vallejo, so old that all trace of their origin is lost. These Mr. Van Russem took and blended into the symmetrical and homogeneous whole that appears on the cover of this book. It is in line with the spirit of the season and will be appreciated by those who love to get away for a time from the modernistic idea.



Al. "Red" Greene trying to make the sun behave

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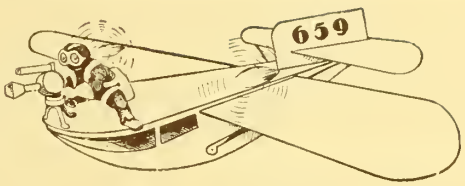
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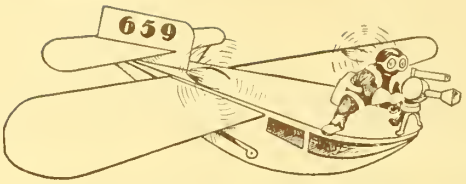




This study by Mr. Carl Widen is a bit unusual. It is a snapshot taken as he was hurrying to location one night in June. The clouds were travelling very fast and the moon was riding high.



Mr. Shirley Vance Martin, pioneer still artist, caught this delightful winter scene on one of his location trips to the far Northwest





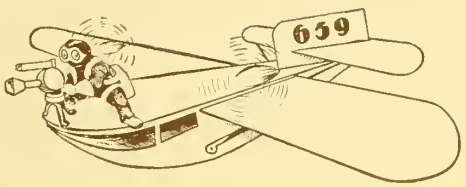


Elwood B. Bredell is to be credited with this impressive desert shot. The locale is the famous Red Rock Canyon.



It takes an artist at heart to see a picture in homely studio buildings. Here it is the pronounced lines that make the study intriguing. Photographed by J. Z. List.



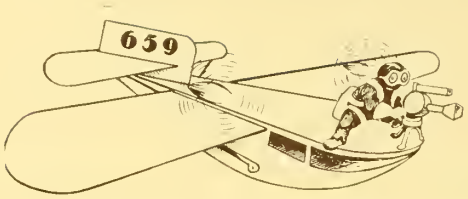




This beautiful pastoral is from the camera of Elmer Fryer. George O'Brien is the shepherd; the maid is (Who is she) The composition is excellent.



Fred Hendrickson, in this shot, caught to perfection the winter mood of Lake Arrowhead.







An artist must have something of the sea-faring man in him to pick up a picture like this marine study of S. C. Manatt. It is a real picture—not a miniature.



Here Fred Archer catches the true spirit of the Mohammedan east. The Thousand Nights and One Night never offered anything more charming.

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"Peacock Alley"	Tiffany-Stahl	Ben Kline
"Song of Love"	Columbia	Joe Walker
"Long, Long Trail"	Universal	Harry Neuman
"Love Parade"	Paramount	Victor Milner
"The Love Doctor"	Paramount	Eddie Cronjaeger
"Pointed Heels"	Paramount	Al Siegler
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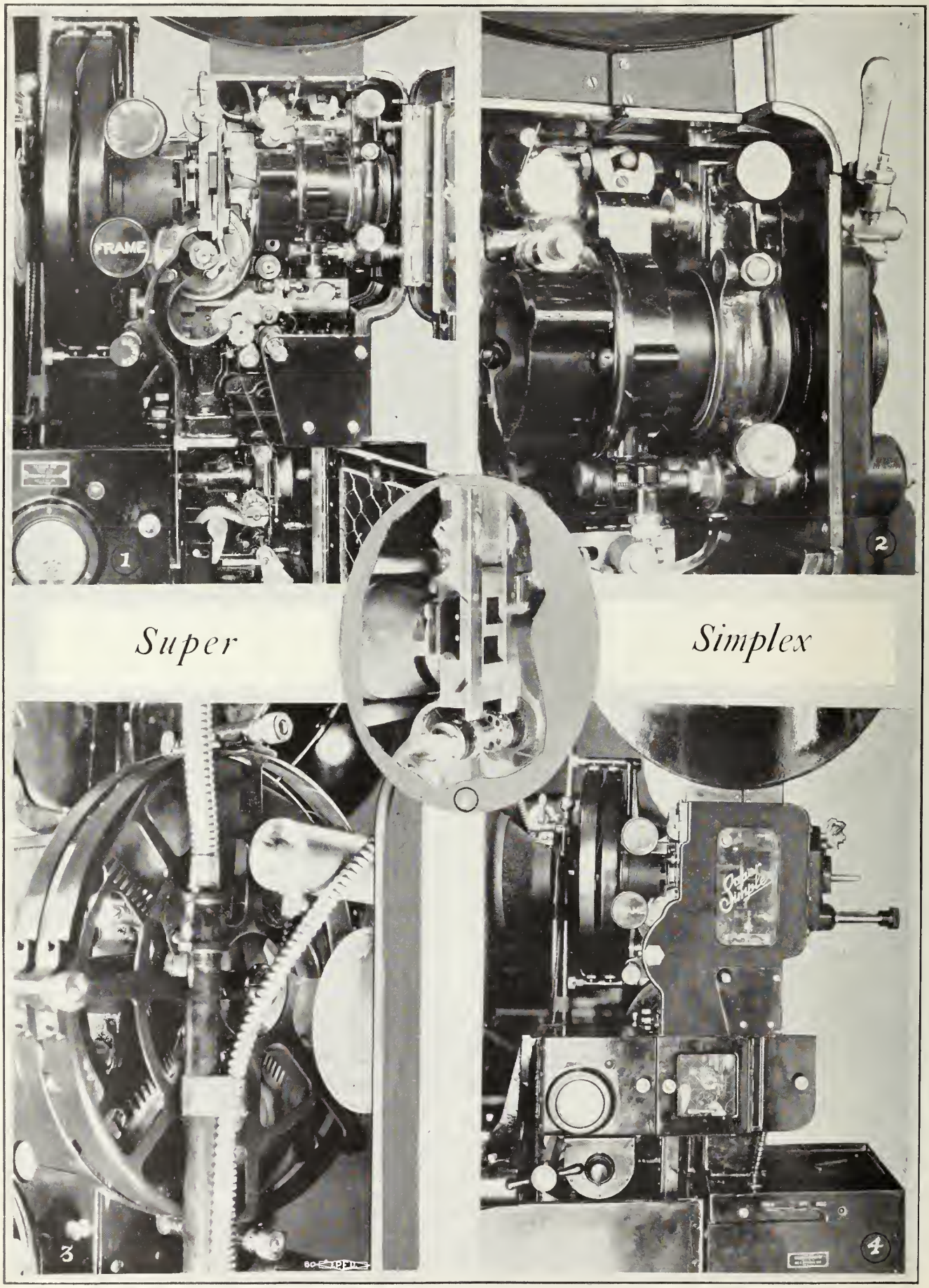
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4



OUTSIDE AND INSIDE VIEWS OF SUPER SIMPLEX

1. *Operating side showing frame lever, film gate lever, shutter lever for retiming and lens locks.*
2. *Operating side showing lens shifting lever in front of machine.*
3. *Revolving shutter from left hand side of machine.*
4. *Operating side with doors closed.*
5. *Double aperture plate which moves up and down.*

6 and 7. View of Amplifier and miscellaneous equipment.

8. *View of control table in theatre.*
9. *The two Super Simplex Projection Machines. The first to be installed on the West Coast.*
10. *View of distributors and control boxes.*

THE SUPER SIMPLEX

(Continued from Page 15)

ble to control the volume directly at this desk. A Volume Indicator, which connects with the output of the Amplifier System, provides for an accurate means of determining the excat volume of sound currents being delivered to the loud speakers.

In order that the quality of sound records may be really determined, the reviewing of films may be done by this method with the assurance that the sound reproduction is at its best and does not vary with respect to quality or volume. The Volume Indicator Panel, in connection with frequency film records, provides a convenient means of making the routine tests necessary in meeting these requirements.

The Still Camera in Motion Pictures

BY

GEORGE BARR BROWN

A motion picture salesman left his branch office. Under his arm was a small package, neatly tied. In his brief case were contracts to which he hoped to secure the signatures of exhibitors in favor of his great producing organization in Hollywood. A few hours later he alighted from a train in a fair-size city capable of supporting a number of talking picture theatres.

He held his precious package tightly under his arm, as he made his way to the leading theatre. He entered the office of the manager to discover that important individual in the sanctum of his inner office, an eight by eight affair with a small desk upon which were firmly planted his comfortably sized feet. The manager was deeply engrossed in a multi-page trade publication brilliantly bedecked with brightly colored "ads" heralding the latest products of Hollywood's studios, stellar talent, directorial genius and story creations.

They exchanged greetings and made casual remarks about the weather. The film salesman opened the small package that he carried tenderly under his arm. One by one he showed the theatre man still pictures — not a few, but a hundred — still photographs of a great production, filmed and recorded by a great and resourceful company that was his own organization.

He showed the manager great stars, stupendous sets, huge scenes, thrilling action, gorgeous effects. He showed him thousands of "extras" and completely illustrated a great talking motion picture with a splendid series of still pictures—beautifully photographed, artistically composed, and intelligently staged.

The exhibitor pondered. He fingered through the still pictures. He thought of the illustrated trade paper he had been reading when the salesman entered. He visioned the lobby displays. He thought of the town plastered with billboards, twenty-four sheets, six sheets, three sheets, and one sheets. He thought of the daily newspapers with attractive two column cuts. He visualized a series of pictures in any number of publications.



An artistic and charming composite conceived and executed by Buddy Longworth. Marillyn Miller is the girl.

A little later the salesman left the fair city, the package of stills under his arm carried more carefully than ever. In his brief case were the contracts, signed by the theatre manager. He had sold a motion picture with still pictures alone.

Such is the importance of the still man and his eight by ten camera in the cinema industry!

Far removed from the locality of the theatre mentioned, the still man plies his trade in Hollywood. No matter how huge the setting; how difficult the angle; how much he is handicppade he is there with his still camera as a vital factor in the motion picture industry of today. He is far above the stage, catching a difficult shot of the director and technicians as well as the actors. Next he is on the set shooting intimate studies of Hollywood's greatest stars in lovely gowns of newest mode.

In addition to photographing an entire motion picture in a series of still photographs, the still man illustrates the making of a motion picture. He shows interesting points during production; hazardous and humorous moments on location or at the studio are carefully pictured,

(Continued on Page 27)

Multicolor Coming Fast

Multicolor has outgrown its swaddling clothes and stands forth as a definite achievement in cinematography.

This color process is attracting immense attention among those producers who see in color, not only one of the refinements, but one of the essentials of up-to-date motion picture production.

It is first of all a simple process and any cameraman can use it with little instruction.

It enables every cameraman to be a color cinematographer, using his own individual equipment.

He can use either his Bell & Howell or his Mitchell to photograph with Multicolor, only a slight change in the camera being necessary.

This is of immense advantage to all concerned as it does away with the necessity of purchasing new equipment or of junking that already in use and, when one realizes that the cameramen of Hollywood own upwards of half a million dollars worth of photographic equipment, it is therefore, evident that the new process makes for the greatest economy.

For use on distant locations the Multicolor process is especially desirable as it is fool proof, economical, efficient and does not require any unusual treatment in the laboratory.

In Multicolor colors are faithfully recorded and a contributing factor to the success of the process is its ability to photograph interiors with but little more light than is needed for monochrome photography.

And a most important point to consider is the fact that with the Multicolor process sound can be recorded from the film itself. With the voice, or music or sound effects the result on the screen is identical with black and white. The sound track is an integral part of the film itself, is colored and is protected with a transparent coating which prevents abraisions and scratches to the sound track as well as to the picture itself.

Credit for the technical development of Multicolor is due William T. Crespinel, whom Rowland V. Lee and William J. Worthington, owners of the process, have backed consistently for the past five years.

Quite recently Crespinel has perfected what is called the Multicolor Rainbow negative. This negative makes it possible to produce color with normal black and white lighting equipment. This is of tremendous importance to the industry when it is realized that heretofore other color processes have required from four to ten times as much light as is necessary for black and white photography.

By special treatment of the film, Multicolor has succeeded in obtaining perfect results at eight times normal speed. This makes possible the use of color in analysis of motion and gives to Multicolor the same range of use as employed in black and white.

The process also permits the same sharp definition as secured in the use of black and white. This is because the process secures color by the conversion of the original silver image and does not employ the additional stamping of dyes on the positive print, which, of course, tends to blur and destroys the clearness of the resultant picture.

If the original negative is sharp in the taking, the Multicolor positive must be, and is, equally sharp. Inasmuch as the basic chemicals used result in combinations of blue greens and orange red, Multicolor pictures possess a great color range.

Multicolor's colored sound track is patented. It permits the supplying to the producer of his daily rushes in both sound and color. People who have heard it state that the blue sound track permits of as fine a sound rendition as anything done with the black and white track.

Any of the present sound reproducing systems are equally adaptable to the Multicolor process. Variable area, variable density and disc recordings are used.

President Alvin Wyckoff, of Local 659, has entered into a working agreement with Multicolor covering both production photography and educational and commercial work and in order to be prepared to handle color in sound as well as black and white his having his extensive photographic equipment remodeled to accommodate the Multicolor process.

—o—

MULTICOLOR QUESTIONNAIRE

Q. 1. What type of motion picture camera is used in photographing by the Multicolor process?



W. T. CRESPINEL

A. Either Mitchell or Bell and Howell cameras are used, both of which are considered standard equipment throughout the motion picture industry.

Q. 2. What lenses can be used in making Multicolor negatives?

the shortest focal length which is 25 mm. to the largest telephoto lens made.

Q. 3. Can Multicolor lap dissolve from exterior to interior and what changes are necessary to the camera?

A. Multicolor can lap dissolve from exterior to interiors. No changes are

A. Lenses of the shortest focal length which is 25 mm. to the largest telephoto lens made.

necessary to the camera.

Q. 4. What filters are used in making Multicolor negatives?

A. No filters are used.

Q. 5. Since no filters are used, how are the Multicolor color negatives obtained?

A. Two negatives are used in the camera, one recording the blue-green and the other the red-orange end of the spectrum.

Q. 6. Is it possible to obtain dramatic lighting effects in Multicolor?

A. Yes, Multicolor uses a very low key of interior lighting, thus making it possible to obtain light effects.

Q. 7. Is it possible to make double exposures in Multicolor?

A. Double exposures are made the same as with black and white photography.

Q. 8. Can Multicolor make action in slow motion?

A. Analysis of motion pictures up to eight times normal speed have been made by Multicolor.

Q. 9. What negative footage does the Multicolor magazine carry?

A. Each Multicolor magazine holds 1000 foot of screen length film.

GOD HAVE MERCY ON US!

This is the title of a book by William T. Scanlon, member of Local 666, I. A. T. S. E., of Chicago, Ill., recently off the press of Houghton Mifflin Company; price $2.50.

This book was one of the two war novels awarded a prize of $25,000 by Houghton Mifflin and the American Legion Monthly.

Mr. Scanlon writes his experiences as a member of the U. S. Marine Corps and his narrative is an eye-opener to those who did not get their war at first hand as this boy did.

Many were there but how few have the ability to tell the story as the genius



WILLIAM T. SCANLON

of Scanlon tells it. The reader does not merely read, he goes to the war with Scanlon, sees what Scanlon sees, experiences the same emotions that move Scanlon and comes through with the conviction that of all the institutions of mankind, war is the silliest, the most revolting, the most unprofitable, the most destructive to morals and the greatest deterrent to the normal evolution of the race. "God Have Mercy On Us" indeed if we are to have many more wars such as Scanlon shows us.

This book will doubtless prove to be an illuminant on the subject of war and as such will be one of the constructive factors that we venture to hope may in time lead to that hitherto theoretical state of affairs called peace.

By all means read "God Have Mercy On Us." The book is priceless and in the opinion of the writer the most valuable of the war "novels" so called.

Members of Local 659 are proud of the fact that Scanlon is a fellow cameraman and an affiliant of the I. A. T. S. E. May his tribe increase.

Super-Mazda Lamps

BY

ELMER RICHARDSON

The Mazda Lamp department of the General Electric Company has its principal Lamp Development laboratory located at Nela Park, Cleveland, Ohio.



ELMER RICHARDSON

When the representatives of the West Coast Section of the Society of Motion Picture Engineers were en route to the Toronto convention, they stopped off at Nela Park to inspect some of the recent developments in Mazda Lamps which the General Electric Company has brought forth for motion picture lighting.

Their latest development is a 50,000 watt Mazda Lamp, which is the largest experience is acquired, which later is applied to the manufacture of such cars as are sold to the general public. In the manufacture of these powerful globes, many problems have been encountered and solutions worked out which will doubtless be incorporated into the design of lamps not so powerful.

The production of the filament for this enormous globe required a special tungsten slug five-eighths inch square in cross section, twenty-four inches in length.

Tungsten is one of the hardest of the metals, and the drawing of this slug to the size suitable for the filament required much ingenuity on the part of the engineers of the development laboratory.

The stem construction of this lamp embraces an entirely new construction, it being necessary to lead into this lamp a current of 450 amperes in such a way that the vacuum seal of the lamp would not break down.

The candle power of these lamps is Mazda Lamp that has ever been constructed. The West Coast representatives to the convention, Mr. Frank E. Graves, chief engineer of the Universal Studios; Peter Mole of the Mole-Richardson, Incorporated; and Fred E. James, sales engineer of the General Electric Company, were present when the first tests were made on these Super-Mazda lamps, and were called into consultation with the engineers of the Development Laboratory regarding the value of such units in motion picture lighting practice.

Production of such bulbs probably has a similar relation to the lighting industry, as does the manufacture of racing automobiles to the motor car industry. In the course of developing racing automobiles much valuable knowledge and terrific and can only be measured approximately. The engineers calculate that this lamp produces a light of three million candle power. When one realizes that all this energy is given off from an area of about four square inches you can realize that this lamp produces "some light."

It is interesting to note that this development was completed just before the celebration of the Golden Jubilee of Light. In the illustration, there is shown on the table along side of this gigantic bulb a replica of Thomas Edison's first incandescent lamp, a tiny lamp of about eight candle power.

The great super-bulb will no doubt find a definite service in either our industry or in the illumination of aeroplane landing fields.

The engineers at the Lamp Development Laboratory, Messrs. Ralph E. Farnham, Carl E. Egeler, J. A. Van Horn, and Dan Wright were happy to have the representatives of the Society of Motion Picture Engineers meet with them just at the time when they were completing the development of the 50 K.W. lamp. All of these visitors from the West have been in daily contact with the lighting problems of the studios, and were able to give excellent judgments relative to the value of these super-lamps for motion picture work.

In the near future, Mole-Richardson expect to have one of the Super-Mazda lamps delivered to them for experimental purposes.



Left to right—Frank Graves, R. F. Farnham, Carl Eagler, J. A. Van Horn, Fred E. James, Peter Mole, Dan Wright

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A 1 2 3 4 5 6 7 8 9 10 11 12 13 B

To get ring size tear off perforated strip and place around finger, bring A toward B, reaching size.

Mail orders given careful and prompt attention. Kindly send a one-third deposit, ring sent C. O. D. for the balance.

The Wise Men from The East followed the Star

The Wise Men from The Eastma

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Attained Years A

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Quality De

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Good Will
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Every
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throughout
the World

J. E. Brulatour Inc.

THE STILL CAMERA IN MOTION PICTURES

(Continued from Page 20)

to be seen and enjoyed by an enthusiastic world.

Take, for instance a day at Warner Brothers' studios on Sunset boulevard, the great producing organization that



Elmer Fryer, chief still artist for Warner Brothers, at his camera

films and records Vitaphone talking pictures. There are seven specials and feature length talkies in production. The Vitaphone Varieties department is filming and recording one or two reelers at the rate of five and six a week.

Elmer Fryer, Local 659, head of the still department for Warner Brothers and First National, as well as portrait artist for the latter studio, has assigned his men to the various pictures. Fred Archer is portrait artist for Warner Brothers.

Mack Elliott is busy shooting his still camera on "The Man" starring John Barrymore. Irving Lippman is engaged on Al Jolson's latest starring vehicle "Mammy!" Mack Julian is covering "Golden Dawn." J. Bredell is shooting "Hold Everything" with Georges Carpentier, Winnie Lightner, Sally O'Neil and Joe E. Brown. George Baxter, one of the busiest still men on the lot, is chief still photographer for Vitaphone Varieties, the short reel specialties of which Bryan Foy is executive in charge of production. Over two hundred Vitaphone Varieties alone will be made this season.

One of these still men is high on a parallel. Another is shooting an intimate love scene. Another is focusing his trusty Graflex on a fast action shot. Another is covering a huge and beautiful dance ensemble. And so on.

These are the actual duties of a still man on the set during the making of a picture. But they by no means form a complete list of the widely diversified tasks that the still camera performs in motion pictures.

When a picture is in preparation and the director is looking for suitable locations on which to shoot the best possible outdoor scenes he rarely visits the locations himself. Instead, a still photographer is dispatched to the approximate locality with instructions to pick out desirable spots and shoot them. It is from the finished still photograph that the director makes up his mind where the actors will perform and where the movie cameras will be set up.

Reference work is also largely dependent upon still pictures. Each set in which any action of a picture takes place is photographed devoid of actors. This still is filed for future reference when the company may need a similar setting or is desirous of renting the set to another producing organization.

Nor does the reference work stop here. Practically every piece of property of any value is photographed. The stills are filed and numbered so that when a technical director wants a certain kind of door or window, or for that matter, a particular type of wedding cake, all he need do is to consult his still file and find out exactly where to find the real property.

This system is also invaluable for costumes and makeup. At the beginning of production of every picture the players are photographed in their makeup, so that every day they will be exactly the same in character. The shading, etc., is based on this pre-production still.

Costumes follow the same process. If a player at the end of a picture is in doubt as to what he wore the first day, all he need do is scrutinize a still picture of himself and the facts are there.

An intensely vital factor in the business of still men is remote and aside from the actual filming and recording of a picture. That is publicity and advertising—one of the most important phases of the motion picture production and distribution. It is the medium through which the public is reached and made

(Concluded on Page 43)



George Baxter photographing a close-up on a Warner Bros. set. Bryan Foy directing

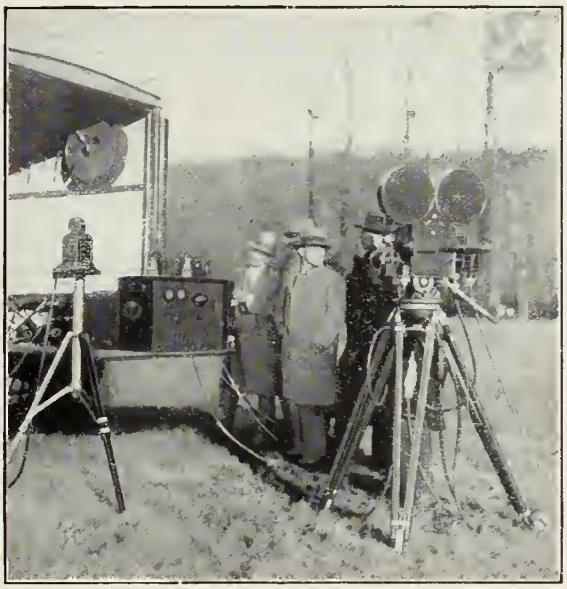
• • • In this work-a-day world of bustle and traffic jams it is manifestly impossible on an occasion like Christmas, personally, to take each of our friends by the hand, tell him how much we appreciate his friendship and express to him the sentiments of love, gratitude and good-will we feel in our hearts, and so I invoke the aid of our magazine as my messenger to carry to each of you the Yuletide greetings of Local 659, wishing each and every one the happiest of all Christmases and the most peaceful and prosperous of all New Years.

Particularly do I desire that this message of Peace on Earth, Good Will to Men shall not fail to reach all members of the I. A. T. S. E. and M. P. M. O., Los Angeles Amusement Federation, California State Theatrical Federation, California State Federation of Labor, American Federation of Labor, Federated Voters of Los Angeles, Locals 644, 666, 665; Local 37; the S. M. P. E. and all those individuals and friends who have given their advertising patronage to our magazine, the International Photographer, to its readers and to everyone who has in any way contributed to is success.

On this occasion of universal good-will, therefore:

I wish you every blessing that comes down from Above:
Health, peace and joy and plenty, and God's abounding love;
Good cheer, success, a lot of fun, friends, honors, gold galore.
If I've omitted anything, add it—and ten times more.

ALVIN WYCKOFF
PRESIDENT
Local 659, International Photographers, I. A. T. S. E.



This illustration shows the Akeley Gyro Tripod in actual use by the Western Electric Company, taking sound moving pictures.

Again AKELEY

. . . anticipated necessity
with a tripod ideal for Sound Pictures

"GIVE us the best camera tripod that human ingenuity can devise!" This was the demand of the sound cinematographers.

It was characteristic of the Akeley Company that its research laboratories had already anticipated this demand and were putting on the market such a tripod—a tripod quiet in operation, capable of great speed and flexibility, vibrationless but light, staunch yet easy to manage.

The Akeley Universal Gyro Tripod, containing the famous gyro mechanism, stands today a leader in this latest field of photography. This tripod is in constant use in many leading motion picture studios making Sound Pictures. These studios include Metro-Goldwyn-Mayer, Fox-Case Movietone, Pathe and Paramount. Other world wide corporations, such as Radio Corporation of America, Westinghouse Manufacturing Company, Western Electric Company and General Electric Company are enthusiastic users of the Akeley Gyro Tripod in their important work. We invite you to write for full description of this Tripod and details of our deferred payment plan.

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FRANK KING

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WARNER NICHOLS CROSBY

Hoke-um

By IRA

Independence

There was once a movie director who told droll stories, and expected a hearty guffaw from every member of his staff.

One day, not long since, he sprung a hot one. As usual, the crew came across merrily, with the exception of a sour-faced script clerk.

"What," roared the director, "don't you think that one funny!"

"Me!" said the script clerk, "hell, no! I'm quitting your troupe tonight."

— : : —

Weather Note

Earl Stafford: "Why is it that the new 'talkie' theatres are so cool in the summer time?"

Earle Walker: "It must be because of the movie fans."

— : : —

Horse Stuff

First Cowboy: "What did the director say when your horse fell into the swimming pool?"

Second Cowboy: "Oh, he yelled, 'Pull out the plug!'"

— : : —

Style Item

Jean Davenport: "Look at the condition that chorus girl is in."

Bob Miller: "Is that a condition? I thought it was a bathing suit."

— : : —

The Only Five Ways to Become a Cameraman

1. Get a job as an assistant cameraman.
2. Pray for a break.
3. Pray for a break.
4. Pray for a break.
5. Pray for a break.

— : : —

Nut Stuff

Bob Tobey: "Have you ever heard of Pinacryptol-Green?"

Bob Mitchell: "No. What's the name of it?"

Bob Tobey: "What?"

Bob Mitchell: "What did you say?"

Bob Tobey: "I didn't say anything."

Bob Mitchell: "Oh, I didn't hear you."

— : : —

Ouch!

Actor: "In that death scene of mine, I moved them all to tears."

Assistant Director: "Yeah, they knew you were only playing dead."

— : : —

A Good Time

Red Tolmie: "Which movement for a watch do you like best?"

Chuck Geissler: "The hula-hula, I believe."

— : : —

Sour Joke

Clyde DeVinna: "Do you know what they call lemons in Africa?"

Billy Marshall: No, what?"

Clyde DeVinna: "Lemons!"

— : : —

Foolish Question 8762

Extra girl (to Maurice Kains, who is shaving outside of his tent on Big Pines location): "Do you always shave outside?"

Maurice Kains: "Certainly! Do you think I'm fur lined?"

— : : —

Endorsement

Editor The International Photographer,
Dear Sir and Brother:

Last month I lost my tripod cranks, which are very necessary to me at times. I immediately inserted an advertisement in our paper's "Lost and Found" department, and waited.

Yesterday I came home and found the cranks in the pocket of my other suit.

God bless our paper!

— : : —

Stealing Mother's Stuff

Cameraman (to Mack Sennett extra girl): "Wouldn't your mother be shocked if she saw you in that bathing suit?"

Extra girl: "She sure would. It's hers."

— : : —

First Assistant: "It's funny how my hair parts exactly in the middle."

Second Assistant: "Yes, on dead center, as it were."

— : : —

Easily Pleased

Roy Musgrave: "I just heard the leading lady say she dresses to please herself.

Ray Rennahan: "Well, it doesn't take much to please her."

King Charney says . . .

WHETHER IT BE CARBON OR INCANDESCENT LIGHTING
WHETHER IT BE TALKIES OR SILENT

Insist Upon Agfa *Negative*

For definite results

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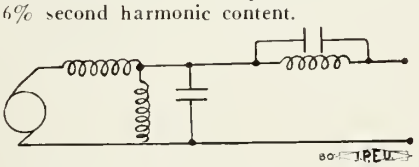
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MR. BALSLEY WRITES

Editor International Photographer.

Dear Sir—I was recently interested in experiments in New York similar to those outlined in J. C. Alberts' paper in the November issue.

We found that the size of the shunt condenser could be greatly reduced and the effectiveness of the filter increased by tuning the series field as shown even though we found the nipple to have a fundamental of 1200 cycles with over 6% second harmonic content.



The frequency of the ripple is a function of speed and number of commutator bars and the inductance of the series field varies with machines so no values can be accurately tabulated.

They can be adjusted easily at the generator by listening across the line.

First adjust the capacity of the condenser around the series field until the ripple is a minimum and then add the shunt condenser.

In many cases with small generators used to replace batteries on amplifiers the reactance of the series field was raised so high by tuning that 8 mf was sufficient for the shunt condenser.

J. R. BALSLEY

A. P. S. BANQUET

The first midnight banquet and ball of the California Chapter, American Projection Society, was given at the Roosevelt Hotel, Tuesday, November 26, President Sidney Burton presiding, ably assisted by Secretary Dave Koskoff and Treasurer Ed. Kellar. One hundred and forty-five guests were in attendance and the occasion was an immense success.

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ELMER G. DYER

Extends the season's greetings to all members of Local 659, I. A. T. S. E. and desires especially to thank the following named brothers for courtesies extended while engaged with them in the filming of these productions.

Dan Clark.....“Air Circus”
Al Siegler.....“The Big Hop”
Harry Perry.....“Hells Angels”
Joe Walker.....“Flight”
Bob Kurrle.....“Evangeline”
Ernest Miller.....“Troopers Three”
Jack Rose.....Tiffany-Stahl
Hal Moore.....“Le Marseillaise”
Charles Glouner.....Universal
Harry Newman.....Hoot Gibson Prods.

The Daily Grind

By RALPH B. STAUB

OTTO HIMM has been singing the Morris plan song of late. Otto says it is called "A LOAN AT LAST."

* *

DICK FRYER said his assistant owed a lot to his parents and was still borrowing.

* *

JERRY ASH said he once had an assistant that worked in a penny arcade and he got fired because he couldn't remember the prices.

* *

JOHN STUMAR says an old maid is a girl who said NO once too often.

* *

ALVIN WYCKOFF quotes the old maid's prayer as:

Man to old maid: "Do you look under the bed and then pray before you go to sleep?"

Old Maid—"Oh, no, I pray first and then look under the bed."

* *

JIMMY PALMER says the height of conceit is a baldheaded man putting salt on his head to make people think he has dandruff.

* *

ROY KLAFFKI was bawling out his assistant when Howard Hurd happened along. Howard asked to give the boy a chance, stating that even a worm would turn. Roy's answer was: "IT'S NO USE, THIS GUY'S THE SAME ON BOTH SIDES."

* *

CHARLIE BOYLE has been having considerable trouble with his car of late. Charlie found the payments too close together.

* *

GEORGE UNHOLTZ says that four out of five girls have IT and the other one has to walk home.

* *

ROY HUNT said he had an assistant that was so dumb he thought LEHIGH VALLEY was a brother of RUDY.

* *

BILLY WILLIAMS quotes a Rabbi as saying: "IT WON'T BE LONG NOW," just after he had his nose remodeled.

* *

EDGAR LYONS says a flapper is a girl who wears three things and two of them are shoes.

* *

PEV MARLEY says his director's script girl thinks a dependable husband is a dead one with insurance.

* *

BUD LONGWORTH was ace still man on our newsreel the other day at First National making a revival of Keystone days with Ford Stering, Louise Fazenda, John Dillon, Eddie Cline and William Seiter.

* *

JOE WALKER wants our brother members to know that he has invented a gadget for quick focusing while using a booth. As soon as Joe gives us a still picture of same we want to give him a real writeup on this time and money saver for the producer.

* *

AL GREEN says that some day he hopes to be a great car conductor. Al thinks the change would do him good.

—o—

THE ARC RETURNS

Recent large orders for carbon arc equipment placed by Paramount, as well as Fox, give substance to rumors that several large producers, including Fox, are considering adoption of the new silent arcs exclusively in the production of talkies. Fox now has more than a million dollars worth of lighting equipment of which less than ten thousand dollars worth is incandescent, while recent purchases of carbon arc exceed $100,000.

Carbon arcs are said to give more definition to the countenance than is possible with hard lighting. Actors also like to work with arcs better because they are free from the excessive heat generated by the big bulbs.

Another indication that carbon arc lighting has regained its old supremacy is seen in the recent selection of "Street Angel," Wm. Fox Movietone, as the best photographed picture of the year by the Awards Committee of the National Academy of Moving Picture Arts and Sciences.

Controversy over the respective merits of carbon arc and hard lighting has waged ever since the advent of the talkies when arc equipment then in use was considered noisy for talkie production. Perfection of a choke coil that elimates the commutator ripple, together with extensive experiments in the handling of carbon arcs in talkie production, seems to have turned the tide of battle.

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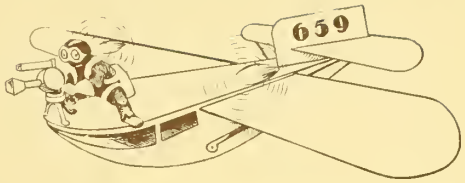
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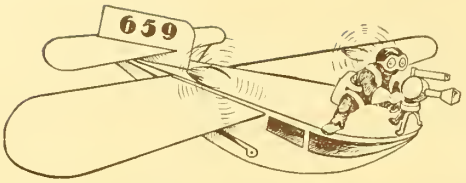




This sail boat on calm water is the intriguing work of Clifton L. Kling. This scene is typical of Chesapeake Bay and neighboring waters. The location is near Annapolis.



James Doolittle is the wizard who caught this typical California scene. He is a specialist in "Golden State" landscapes and has many a prize picture to his credit.





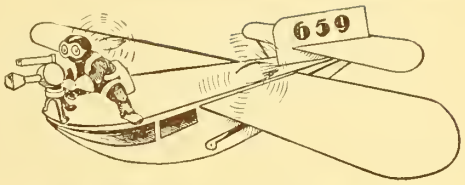


Edw. B. Anderson loves the Far West and is especially expert at the reproduction of Indian subjects. In this study of the young signal-man he displays his artistry.



President Alvin Wyckoff while on location always finds opportunities to lay aside his motion camera and capture a few of the natural beauties of the surrounding country. This beautiful shot was made in the Canadian Rockies.



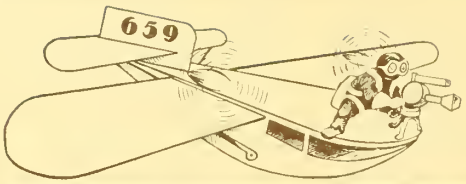




Mt. Broken Top is typical of the work of Hobart Brownell. He is a specialist of mountain scenes and this is one he shot in the Pacific Northwest where they are rugged and picturesque.



Victor Scheurich, though a graduate of the German school of photography appreciates the spirit of the Far West as well as a native. In this argonaut pioneer outfit he has put on paper a real live impression of the days of '49.







Les Rowley caught this delightful still while wandering about one of the big studio lots on a hot day last summer. It is life size—not a miniature—and a perfect reproduction of a winter scene in a Paris impasse, with the exception that the sound of the wind was not caught on Mr. Rowley's plate.



Frederic Colburn Clarke haunted this old tree six weeks before he succeeded in getting the golden eagle posed just as he wanted him. This extraordinary shot was made on the coast near Monterey, California.



James E. Woodbury writes with authority when he takes his camera to register a portrait on the silver plate. This is an exquisite example of his skill.

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We have changed our firm name from the Commercial Raw Stock Company to the Associated Film Enterprises as we expect to grow and wax fat as the industry evolves.

Everything is now up to the minute in our plant and, as we are not in the market for the larger productions, we feel that we can give you a "Personal Service," such as you have not been able to secure any place since the pioneer days.

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Cast your eye on the column to the left and you will see that we have something to interest all of you, even the amateur.

Come over and see us. Look around. Frank Biggy is here to welcome you, most of you fellows know him as one of the best laboratory technicians in the film business. We all want you to make yourselves at home and know that we are ready to serve you.

Wishing you the Merriest of Christmases and the Happiest of New Years, we are

Fraternally and sincerely,

R. E. Hoover

General Manager Associated Film Enterprises.

A Close-up of Ralph Staub

Director-Cameraman Behind Screen Snapshots

Ralph Staub, editor of "The Daily Grind" in THE INTERNATIONAL PHOTOGRAPHER, and member of 659, is a cameraman extraordinary with a roving portfolio. He has photographed every important luminary in the screen firmament and on occasions without number has even had the temerity to direct directors—and has gotten away with it.



RALPH STAUB

Ralph Staub is the man behind the camera that shoots for SCREEN SNAPSHOTS, that interesting one-reel short that Columbia has been getting out for years. And if you don't think this job calls for a rare combination of talents, then you are not familiar with such jobs. To hold it down, one has to be a production executive, a scenarist, a gag man, prop man, electrician and a whole corps of diplomats rolled into one. If one possesses all these qualifications and in addition rates as an A1 cameraman then he may have some idea of Staub in action. Which recalls the fact that he has a middle initial. It's "B"—and undoubtedly stands for "busy."

If we should go into a flashback we could fade in on Ralph about six years ago and find him making a series of one-reel novelty shorts that he called "Cinema Stars." Previous to that he was a struggling cameraman with various producing organizations. But why go back that far?

Staub not only ground out the footage on his one-reelers, but he wrote the titles, edited and cut the film, and then, when he had a completed print ready, took it under his arm, and personally sold it in the state right market.

Staub is of the opinion that his customers made more out of his one-reelers than he did himself. The truth remains, however, that he completed and marketed twenty-six of them in a year.

Then one night while he was troubled with insomnia he got another brilliant idea. This gave rise to the well-known "Guess Who" novelty short reel contest subject. Ralph has statistics to prove that the business played by this contest short was phenomenal, running many weeks here and there in theaters along the Eastern seaboard, and again he claims that the distributors got a better break on the deal than he did.

Getting ideas for novelty short subjects then became a passion with Staub, for the following year he blossomed forth with a new series which he called "Screen Sport Stars."

Whether the stars were lazy and wouldn't perform isn't evident, but Ralph evidently got sick and tired of giving the other fellow the best of the break, for he decided, after a great deal of persuasion, to throw in his lot and his talents with Columbia Pictures.

The following three years found him grinding out scenes showing the famous film stars on the set and off, in moments serious and gay. Columbia kept distributing these "Screen Snapshots" to great advantage in silent form, up to the time a well-known "Mammy" singer turned the motion picture industry over to the electricians and telephone men, upon which "Screen Snapshots" began to appear with "talk and sound effects."

If you've seen and heard any of these talking shorts, you'll agree that they are great entertainment and that Staub surely knows his stuff. Yep, he writes, directs and, if need be, he is able to go out and sell them.

In the good old silent days, which are gone beyond recall, Staub would line up his appointments for the day, tote his camera and perhaps a lamp or two to his little car, hop in and be off. The proverbial one-armed paper hanger with the hives had nothing on this one-man Staub organization.

But now all that is changed. There are many more headaches. When "Screen Snapshots" goes abroad today, there's a $65,000 sound truck, two prop men, one gag man, several automobiles and a chauffeur, and Mr. Staub major-domo's the whole outfit. It costs ten times as much to get the stuff today as it did in the days when the movies couldn't even whisper, let alone shout.

In shooting his scenes Staub has many setbacks; but he is never discouraged. More than anyone else in Hollywood he watches the parade of the stars, for to him it means bread and butter, jewelry for the wife and shoes for his four-year-old kiddy. He has shot every big movie opening that has taken place in Hollywood during the past six years and his slogan is: "When Better Stars are Made, Staub will shoot them."

That Ralph B. Staub hasn't lost his sense of humor in spite of all his activities is evident from The Daily Grind, the wisecrack column he personally conducts in this magazine every issue. The only thing Ralph doesn't want so far as his wisecracks are concerned is to be taken seriously.

OUR NEW ORCHESTRA

Impressario Glen Kershner wants to hear immediately from all members of 659 who play instruments of any kind—bar the hurdy-gurdy.

Glen who is a fine musician, master of several band instruments and, at one time the top flute player in America, has accepted the responsibility of organizing an orchestra within the ranks of Local 659 and as he desires to get quick action he has asked THE INTERNATIONAL PHOTOGRAPHER to send out the call. Address Glen Kershner, care editor, 1605 N. Cahuenga avenue, and state what instrument or instruments you play, what experience you have had and what kind of music you can negotiate. The idea is to organize an orchestra that will be a credit not only to the local, but to the entire I. A. T. S. E.

It will not in any way conflict with union musicians, but will be utilized exclusively for 659 affairs.

Glen also desires the names of those gentlemen who are singers and who would be willing to help make up a double quartet.

A few tap dancers likewise are needed in Mr. Kershner's big scheme and they are urged to get in touch with him.

Out of this magnificent body of eight hundred men there is an immense wealth of talent of many kinds and Mr. Kershner is certain that he will be able to develop an orchestra and other entertainers as skillful as may be found anywhere.

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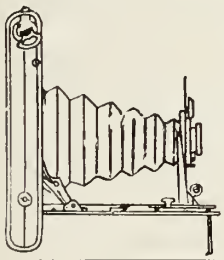
Kershner's Day With the Still Men



The Still Men of the International Photographers, Hollywood, hold their annual picnic and contest



Shots of the new Smith & Aller Dupont building. Left to right, top 1, Reception room; 2 and 3, the Lobby. Middle—1, Office of Wes.; 2, Facade of building; 3, Office of Sim. Bottom—1, Baby Set; 2, Glimpse of Warehouse; 3, Office of Pete.



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Peeping in on Parlin

BY

ARTHUR REEVES, 659

A trip through the DuPont-Pathe Film Manufacturing Company plant at Parlin, New Jersey, would do any cameraman's heart good. The Parlin plant is just one hour from New York and nestled in the low rolling hills of New Jersey. When the writer arrived he was met by Doctor Sease and we proceeded at once to the plant. At the gate we were divested of all matches before we could enter and then went to the Redpath Laboratories. This building houses the Technical Staff and Research Laboratory.



ARTHUR REEVES

I will endeavor to give a cameraman's view of how motion picture film is made at Parlin. During the morning session I was taken through the plant by Mr. G. A. Scanlan who certainly knows the why and wherefore in film manufacture.

The Dope

First we went through the dope department and witnessed the making of the celluloid base. At the dope mixing plant we find the nitrated cotton which consists of small wads of cotton kept damp with alcohol because, in a dry state, it is very explosive. This nitrate cotton is placed in large mixing machines with acetone and other solvents and the cotton is dissolved. The result is a thick syrup known as nitro-cellulose. This dope is forced through filters, then into storage tanks and then into vacuum tanks that remove all the air so there will be no air bubbles in the finished film base.

The Casting Machine

The casting of film base is a very interesting process inasmuch as the dope goes in one end and comes out the other end a roll of celluloid. The dope runs into a hopper which spreads the liquid on the casting wheel with exact precision. The casting wheel is 15 feet in diameter, 50 inches wide and has a perfect surface which is highly nickel-plated. As this wheel revolves slowly, but constantly, the hopper spreads the dope upon it at the desired thickness. The dope adheres to the wheel and as it revolves it sets itself and is peeled off just before the revolution is completed. It is then passed over rollers for further drying.

The casting wheel is encased and the fumes are drawn off and the solvents and acids are regained. As the large strip of film base passes toward the end it is immersed in a liquid sub-base which adheres to one side of the film. This sub base enables the emulsion to take hold during the coating process. The film base is then wound up in rolls 50 inches wide and stored away until ready for coating. The casting machine runs constantly day and night and never varies the temperature more than one degree.

Emulsion Making

In the making of the panchromatic emulsion lies the success of Dupont negative film. The Redpath Laboratories and their research department, headed by Doctor Sease and assisted by H. W. Moyse and D. R. White, have done wonders in the making of panchromatic emulsion.

The nitrate of silver used in emulsions is not very sensitive ti light until mixed with gelatin. After these two are mixed with bromides, etc., the mixture is allowed to solidify in large pieces. These large pieces of emulsion are put into a machine and pressed through a screen, coming out in strings like noodles. These noodles are then put into small containers and washed for a certain period of time. The washing of these noodles has to be done with caution as this process controls certain qualities in the finished product. The noodles, after washing, are put in the ice box until needed. This part of the process is done under the red light. To make the panchromatic emulsion the noodles are put into a large kettle and melted and mixed at 90 degrees. Now comes the important part—the mixing of the dye which makes the emulsion panchromatic. As soon as the dye is properly mixed and the emulsion is at the proper viscosity it is run over to the coating machine. The dye used in this emulsion was developed in the Redpath Laboratory. From the mixing point on, everything is handled under the Green safe light.

The Coating Machine

The coating of emulsion on the film base is a very important step in film manufacture. The film base is coated in rolls 50 inches wide and in lengths up to 4000 feet. The film base is passed over rollers with the sub-base side downward into a constant level tank and is emersed the right depth so that the emulsion will not get on the reverse side of the base. The liquid emulsion is at the proper temperature and viscosity and as the film base passes through it adheres to the sub-base. The speed at which the film base passes through the liquid emulsion determines the thickness of the emulsion upon the finished film. As the film travels up from the emulsion tank with the wet emulsion sticking to it it passes into a chilled chamber which is very cold and sets the emulsion. From here it passes over rollers into the drying tunnel which is 350 feet long and is then rolled up in large rolls for the slitting department. The coating machines are shut down every few days for thorough cleaning as we all know that dirt or dust is a bug-bear in motion picture film.

The Finished Product

The rolls of film coated with emulsion are sent in to the slitting department where it is cut into the right width and length. The film then goes into the perforating department and then into the inspection department. Here the film is wound into rolls for packing and during this process the emulsion side is inspected by light reflected at an angle that will show any defect. The film is then packed in cans and labeled for shipping.

The Afternoon Session

The writer was turned over to Doctor Sease who proceeded to explain the technical and scientific side of film manuture. In every step of the making of film there are exhaustive tests to be made. These tests were explained by Doctor Sease. First the dope is tested before casting and the film base is constantly watched for scratches and other defects. Then the emulsion has many tests before coating and as soon as coated every roll is tested at each end before it is O.Ked for slitting. Now the real testing starts. The film is given the well known H and D test and Photometer tests and tests for speed and color values as well as comparative tests with previous emulsions. Then there are static tests, tensile strength tests and no end of perforator tests—in all about 15 separate tests before the film can be put into the can.

There seem to be no deep secrets at the Dupont-Pathe Film Manufacturing Company's plant at Parlin and one is impressed with the readiness that questions are answered and processes or machines explained. But, after all, what can a layman learn going through a great industrial plant like Parlin in one day.

—o—

W. E. OPENS LAB.

The formal opening of a new engineering laboratory by Electrical Research Products for research and experimental work on talking pictures as a service to producers using the Western Electric recording systems recently took place in Hollywood

The laboratory is equipped with a complete one channel film and disc recording system, sound proof recording studio, a review room for the showing of talking pictures, developing and printing equipment and many other machines and apparatus for the study and perfection of talking equipment and production technique.

The laboratory is another step by Electrical Research Products in rendering immediate service to help them solve problems of recording which continually arise in their efforts to further the art of talking picture production.

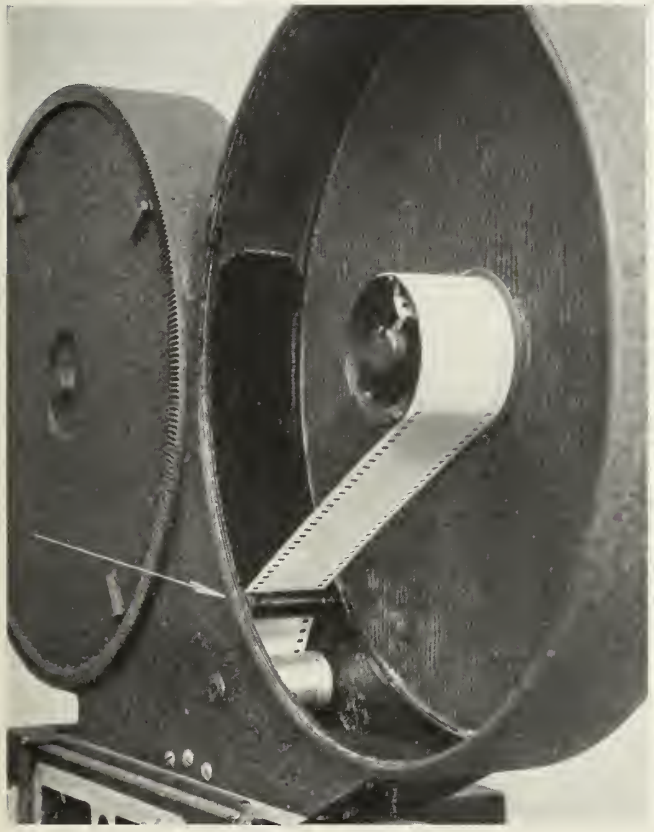
According to J. J. Lyng, vice president of Electrical Research Products, who attended the opening, the motion picture industry is a creative one and every new picture puts the recording system to a different use than the preceding

(Continued on Page 41)

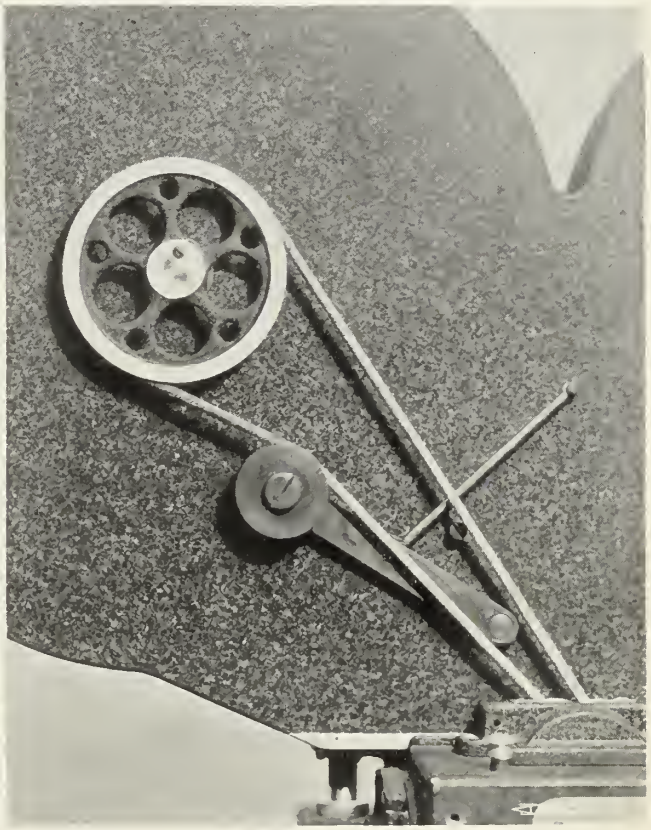
Buckle Proof Magazine

BY

GUS JONSON



INSIDE



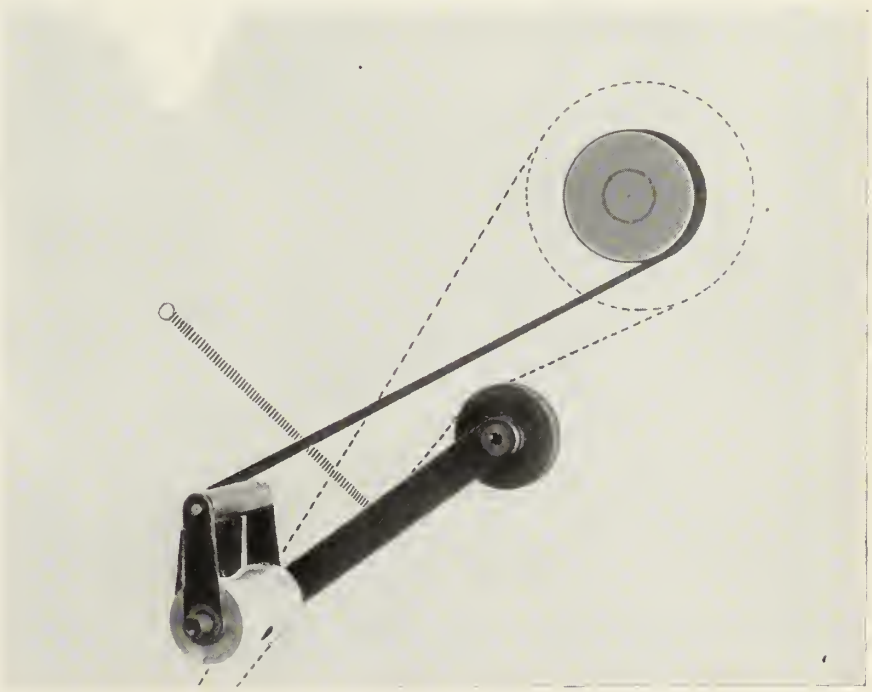
OUTSIDE

While cameras have been constantly improved the magazine for holding the film has had very little change since its conception, until recently. The Mitchell Camera Corporation made a great improvement when they came out with their rollers in the throat of the magazine; next came the contracting spool which was a boon to the assistant, in unloading magazines.

Ever striving to improve and increase the efficiency of their products, the Mitchell Camera Corporation have now come out with an improvement on their 1000 foot magazine. This is a simple device which they call the "Anti-buckler" that controls the magazine belt by means of an idler causing it to slip when the film is wound too tight ,and grip when necessary to take up faster.

This is worked by the film itself inside of the magazine. As an illustration the pulley on the outside of the magazine may be held by the hand so it will not turn, a reasonable length of time, allowing the film to pile up in the camera, BUT NOT AROUND THE SPROCKET, and when you release the pulley, "presto" your film will quickly slide up into the magazine.

Now-a-days with cameras covered as they are by blimps, bags, etc., on account of sound pictures, a buckle is a serious thing, not only expensive as to loss of time, film and cost of effort expended, but may injure the camera necessitating time off for repairs, etc.



This little device will make belts last longer and require less attention, as it works equally as well with a belt so loose that it formally could not be used. This little device can be put on all old Mitchell magazines quickly at a very small cost.

Value of Making Duplicates

By EMORY HUSE



EMORY HUSE

It is customary, when things are running smoothly and production is at a high level, to think in terms of the present more than terms of the future. However, there are times when nature takes a hand and upsets the course of events, leaving in our minds the feeling that we should have prepared for the future.

The motion picture industry has recently been confronted with a fire of major proportions, which affected very strongly certain producing companies. Valuable negatives were lost and the money tied up in these negatives is lost with them, unless by chance there are duplicate copies of the negatives in possession of the producing units suffering the loss.

It is the purpose of this article to bring to the minds of those engaged in the production of motion pictures the necessity from an insurance standpoint of making complete high quality duplicates of each finished production prior to the release printing. In the past the making of duplicate motion picture negatives presented certain difficulties from the standpoint of attaining good photographic quality, which difficulties have been overcome to a marked degree by the present high standard of photographic emulsion manufacture. The unsatisfactory quality of duplicates has been due to the fact that there were not available films designed specifically for this type of work. To this must also be added a lack of understanding of the conditions under which the best possible duplicates can be made.

During the past year there have been available on the market two films manufactured by the Eastman Kodak Company for the sole purpose of making high quality duplicate negatives, prints from which duplicates compare very favorably with prints from the original negative. These two films are Eastman Duplicating Positive and Eastman Duplicating Negative. The cost of these two films together per foot is exactly the same as a single foot of Panchromatic Negative film and these films offer to the trade an inexpensive insurance against the loss of the original negative. It is safe to say that a complete duplicate negative of any picture can be made for a small percentage of the cost of the original picture. If every finally cut negative is duplicated and the duplicate negative is stored in a vault far removed from the place of storage of the original negative, the protection guaranteed by this arrangement is certainly far more important to the producer than the expenditure for the preparation of this duplicate.

We should not only look ahead to the possibility of destruction of original negatives by fire, but we should also be prepared in case the original is otherwise damaged.

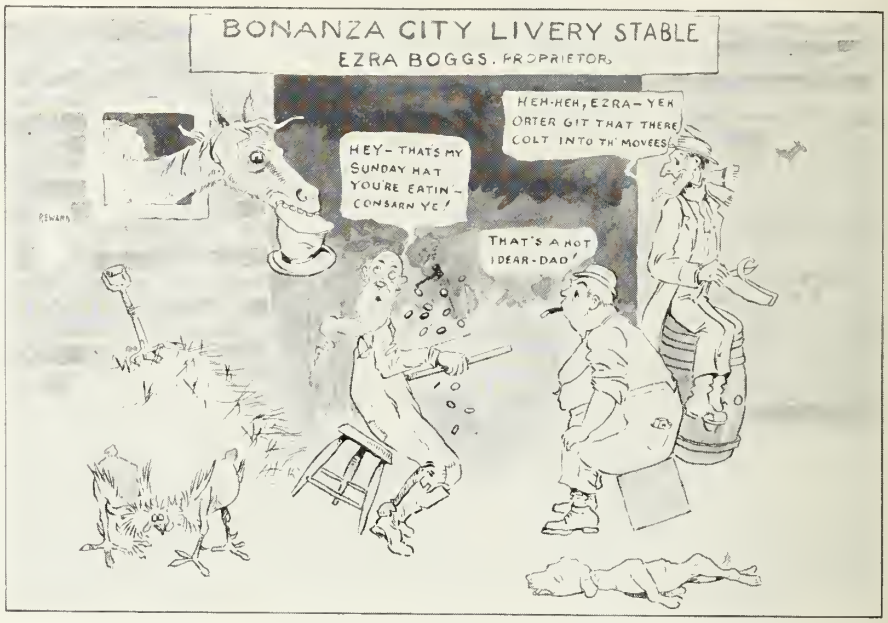
A good duplicate negative should be capable of giving a print almost undetectable from a print from the original negative; it should reproduce the tones of the original accurately; it should be as sharp as the original; while the increase of graininess should be negligible. It is quite possible to fulfill these conditions by using the two previously mentioned films. Instruction in the use of these films will be very gladly given upon consultation with local representatives of the Eastman Kodak Company.

The Aladdin's Lamp of the Movies

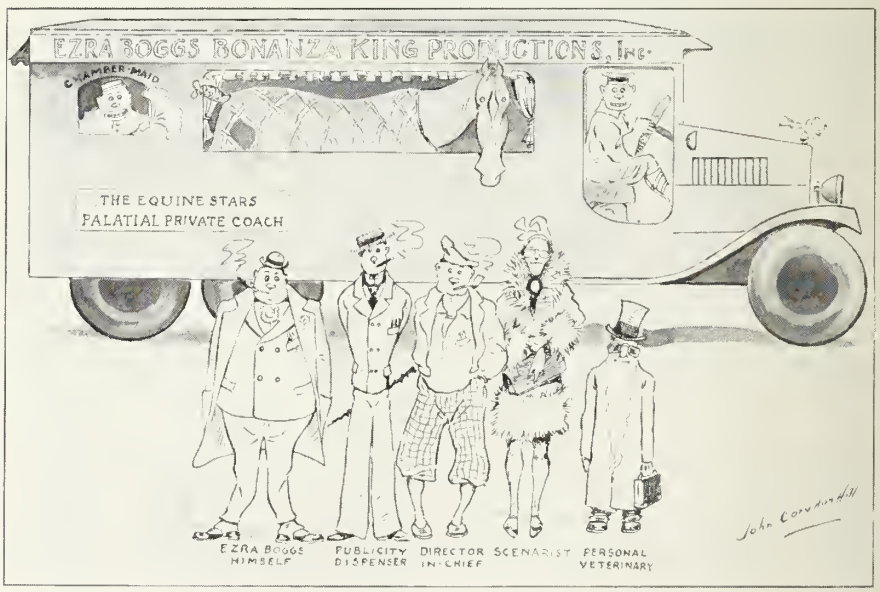
NUMBER TWO

BY

JOHN CORYDON HILL



In this simple fashion began the meteoric cinematographic career of an unknown small town livery plug



Behold now his lordly and affluent state and the glittering aggregation for which he is the meal ticket

Frederick Kaifer

HE-1128 **HO-7101**

Bob Roberts Finds Plenty to Shoot at in Africa



BOB ROBERTS PHOTOGRAPHING THE AFRICAN DIC-DIC

ART PHOTOS IN AFRICA

SOMEWHERE IN AFRICA, August, 1929.—Bob Roberts, Akeley cameraman, with the M-G-M "Trader Horn" expedition into Africa, is enjoying a rare opportunity to get camera shots of tropic scenery and exotic subjects such as native witch dances, wild animals in their natural state and barbaric aborigines on the hunt and at home.

Like the postman on his day off, who spends the time in taking a nice long walk, Roberts, in addition to his photographic duties, gets out on his own and is accumulating a pictorial library of African lure and lore.

After stalking wild elephants, crocodiles and what not, there is at his disposal—in the midst of the jungle—a modern dark-room, a double lined black tent furnished with electric light, electric fan, and electric refrigeration for the protection of chemicals in this torrid heat.

For some wild animals Roberts is using a Graflex 5x7 and is having success with the new Eastman Filmpack loads, with which he was supplied by Ned Van Buren for the purpose of testing them under adverse conditions. With the Filmpack twelve exposures can be made from one load by simply pulling a black slip of paper out after each shot. In an elephant charge, Roberts, using Filmpack, took four Graflex shots in rapid succession before it was necessary to get out of the way. With plates one shot only would have been possible.

Bob's advice to amateurs who contemplate a visit to the African wilds is interesting. The African light is deceptive, due to the absence of actinic rays. In this respect Africa is unlike the islands of the South Seas, where Roberts also operated an Akeley under the direction of Mr. Van Dyke, on two visits, one to film "White Shadows of the South Seas" and the other for the production of "The Pagan." Twelve of the Bob Roberts South Sea Studies will be found in the new edition of the Encyclopaedia Britanica.

Amateurs, he says, can get good Kodak results in Africa by shooting at one-twenty-fifth part of a second with wide open lens, provided the lens works only at a stop of 6-3. Otherwise they will probably have under-exposed photos, even though taken in the bright sunlight. Under foliage and in deep shadows, he says, it is impossible to get good photos without time exposure.

Roberts prefers panchromatic film and recommends it for use with the Filmpack as a result of his experiments in Africa, where he has been the first to put the combination to test.

The "Trader Horn" production is getting some wonderful shots of actors in combination with wild animals, as required for the story. This is due in part to the use of a vignetting device for the Akeley camera perfected sometime ago by Roberts and now in general use on the Akeleys employed by the M-G-M in Hollywood and elsewhere.

With Director Van Dyke, Roberts has now covered a good portion of the globe having been with Van Dyke to Alaska on "The Trail of '98"; to Panama and Costa Rica on "Tell It to the Marines"; Texas on "The Big Parade" and elsewhere as before stated.

"There is no place in the world like Africa for oddities and beautiful views," says Roberts. "Some of the scenery is so unreal that Van Dyke has hesitated to use it in the Trader Horn story as the audiences will hardly believe it is genuine."

W. E. OPENS LAB.

(Continued from Page 38)

one. Some are slightly different; others radically different. The new laboratory will undertake to study such problems and to provide the studios with the knowledge and technique for achieving such new effects.

With such a laboratory in the heart of production, the necessity for tests and experimentations by the producers will be eliminated, thus enabling producers to devote time and studios to production.

The laboratory and a large staff of experienced sound engineers and research workers will be under the direction of K. F. Morgan who has been engaged in voice transmission work for many years. The laboratory is housed in a new building at the corner of Sycamore Avenue and Santa Monica Boulevard.



Captain Bob Roberts bags his first big game in the Dark Continent.

SYNC SHOTS FROM P. F. L.

We're sync-ing! Turning over! Red Lights! Quiet! Action!

Henry Raphael Angelo Gerrard is putting the finishing touches on "Vagabond King." His photography "lends color" to the report that no vagabondage exists insofar as his artistry is concerned, and Technicolor becomes more truly enthroned because of his wizardry.

Archie Stout is again combining business and pleasure on the isle presented by the gum-chewers of the nation to Wm. Spearmint Wrigley. He is accompanied by his director, Wm. Wellman, Richard Arlen, Nancy Carrol and Baby-booths sufficient to make "Flesh of Eve" an outstanding production. The boys doing the work are Curly Lindon, Fred Mayer, Rex Wimpy, Jimmie Knott, Ken. Harlan, Al Myers, "Skippy" Burgess, Ted Hayes, and Al Smalley. Archie tells 'em what filter to use and spends the rest of his time trying to figure out the result of a cross between a flying fish and a mountain goat.

Al Siegler's racing picture at Riverside with Eddie Sutherland, featuring "Dick" Arlen and Mary Brian, got the checkered flag just in time to permit Al to get a flying start with Louis Gasnier, who is directing Evelyn Brent and Clive Brook. Al's interference consists of Ralph Reynolds, Roy Eslick, Otto Pierce, Kay Norton, Eddie O'Toole and Cliff Shirpser.

Chas. Lang is giving the boys somethings to shoot at in Miss Arzner's "Sarah and Son," featuring Ruth Chatterton.

Charles Work in the Cromwell picture just finished, "Playing the Game," is outstanding, but he couldn't go wrong with fellows like Blackstone, Pittack and Bennett to help him, who in turn were "told how" by Fapp, Morris and Shirpser.

Of course Victor Rembrandt Milner has not been wholly idle, with Mr. Lubitsch making himself more famous with "Love Parade," featuring Miss MacDonald and Maurice Chevalier—no doubt Vic's stock will go above par when this production is released and Vic owns 51 per cent, so watch out. Vic's next big feature will be "The Humming Bird" with Clara Bow, under the able direction of Lothan Mendes. Nearly forgot to say that Mellor, Rand and Knott will continue "yessing" Vic, with the "yessing" made unanimous by Ahearn, Griggs and one man doubtful.

Has Harry Merland told you about the script girl who couldn't understand why her check was returned when she ordered a male from a mail order house? Bob Rhea now helps laugh at Harry's bedtime stories of the war, and of Hollywood.

Al Micklin and Lucien Ballard have just completed an estimate that, were all the Eastman film they have loaded and all the DuPont film they have loaded, be stretched out in two parallel lines between Hollywood and Yokohoma, it would be fogged. If you doubt this, proof of same may be had by enclosing stamps.

Technicolorings

Tiffany-Stahl all-color, all-sound, super feature, "Desire," promises to be one of the big pictures of the season. It is a tensely dramatic story of the African jungles, replete with warlike natives, wild animals, and other local color. The picture is being photopraphed by an all-Technicolor staff under the supervision of Charles P. Boyle. His crew lines up as follows: Allan Davey, Henry Kruse, Ira Hoke, Charles Bohny, Maurice Kains and Eddie Garvin.

The lights are being handled by Don Donaldson of Local 37. Walter Culp, also of 37, is in charge of a picked crew of grips.

* * *

Al Gilks, formerly one of Paramount's foremost first cameramen, has joined the Technicolor staff. Bro. Gilks has been with Paramount for several years, and was during that time responsible for many of their box office successes.

* * *

"Hit the Deck," forthcoming RKO release is now in course of production in Technicolor. "Hit the Deck" is being directed by Luther Reed. Technicolor cameramen on the feature, reading from left to right, are: Howard Greene, supervisor; Earle Walker, Harry Hallenberger, Louis DeAngelis and Jean Davenport; Al Greene, Bob de Grasse, Willard Barth for RKO. Bob Kurrle is supervising the production for RKO.

* * *

Jean Davenport and Louis DeAngelis, both from the Warner Bros. lot have transferred their interests to the fast growing camera department of Technicolor.

* * *

Technicolor sequences for the United Artists feature, "Playboy," have just reached completion under the cameras of Ray Rennahan, Roy Musgrave, John Landrigan, Thad Brooks and Carl Guthrie.

* * *

H. C. Ramsey, who has for many months past been on the Warner lot, recently joined the Technicolor staff. He has been assigned to the M-G-M studio unit.

* * *

First National's "Song of the Flame," an operetta by Otto Harbach and Arthur Hammerstein, is being filmed in Technicolor by Frank Good, Arthur Reed, Lee Davis, Milton Bridenbecker, Chas. Geissler and Bob Miller; Lee Garmes supervising for Warner Bros., F. N., Jack Alton, assistant.

* * *

Thad Brooks and Bob Miller, well-known members of Local 659, are now operating under the Technicolor banner. Both have finished the Technicolor school course and have been assigned to company units in the field.

* * *

Bennie Kline's super production for Tiffany-Stahl, "Peacock Alley," boasts a beautiful Technicolor sequence featuring the star, Mae Murray, in elaborate dance numbers. Technicolor boys on the picture were: Charles P. Boyle, Henry Kruse, Harry Hallenberger, Ira Hoke, Chas. Bohny, Eddie Garvin and Maurice Kains.

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THE STILL CAMERA IN MOTION PICTURES

(Concluded from Page 27)

acquainted with the personalities and productions they buy when they pay for their tickets at the box office window. Here the still man is of outstanding importance.

Pictures can say more in less time and a lot less space than words and, in many cases, in a much more interesting manner. The advertising of motion pictures, either in trade publications for the exhibitors, newspapers for the public, theatre advertising for the immediate local runs, or what not, is based primarily upon still pictures. They tell the story in the most interesting manner.

Highpowered catchlines command the eye of the prospective theatregoer, but it is the picture he looks at. It spells authenticity. People want to see it. Like the old theory "seeing is believing," the still picture shows them.

This manner of bringing a production before the public could be divided into a thousand different parts, but the major ones will suffice.

A feminine star has greater opportunities to have her photograph constantly before the public than has a masculine one. The field of fashions is open to her. The newest creations come to the stars first. The stars are photographed in them and then these fashions reach the rest of the world through the medium of still pictures. The star's beauty and charm command the attention of magazines, fan publications, current news periodicals, etc. The public sees—and is interested in her.

Then again, a star is almost public property. Their smallest comings and goings are news to the world, therefore, the public likes to know how screenland's celebrities live. The still man is despatched to their homes to bring back permanent records of their houses, both interiors and exteriors, and the novel appointments which characterize their residences.

People like to see their favorites in bathing suits, tennis togs, golf outfits, motoring modes, airplane attire, informal clothes, formal clothes and so on. It is up to the still man to provide pictures of them in these many and various different poses and raiments.

Many a star of the present day, and there are more to come, has first been introduced to the public by still pictures posed in this manner months before her first picture is even released. She became known by her still pictures long before she was ever known in moving pictures! Such is the power of the still man.

Strange as it may seem, almost paradoxical in fact, the still photographer is one of the most vital artists in an industry dealing in motion and action. Like the bare-waisted stoker, who feeds the fire of a great liner at sea, his glory must go unsung. But the achievement remains.

DYER SCORES IN "FLIGHT"

Elmer Dyer is getting a great hand from the critics and reviewers on the excellence of his photography in "Flight," the Fox aerial picture. Mr. Dyer wants it understood, by the way, that he can photograph on terra firma as well as in the air. He is a top notcher whereever he is placed.

—o—

Harry Fischbeck, Geo. Clemens and Fleet Southcott have finished their assignment on "The Paramount Parade" and will soon start with Frank Tuttle on "Only the Brand," featuring Gary Cooper and Mary Brian. Harry, handicapped by George and Fleet, has done some very excellent work recently in both B & W and color that will keep him up amongst the leaders of the actinic artists who handle lumens with a lavish hand.

Virgil Miller says that golf scores should not be reckoned in strokes or holes, but as he recently announced his own score, viz: 38 divots, 22 topped drives, 16 slices, 1 hook, 7 lost balls and a headache.

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SALES & RENTALS

Chicago — Six-Sixty-Six — Chicago



1—George K. Spoor and his first projection machine, photo by Fred Wagner, 666. 2—President Charles N. David and John C. Richardson with movie machinery they operated as boys in the old Essanay Studio, photo by Chouinard, 666. 3—Here is a part of the Six-Sixty-Six World's Fair Exhibit. Left to right: Albert Steis with a Gaumont beater type camera; Dave Hargan, with the first Bell & Howell ever made; Oscar Ahbe with the first B & H all metal (it is No. 9); Conrad Luperti with the first Natural Vision Camera and Marvin Spoor with the latest model Natural Vision Camera. George K. Spoor, of Essanay, owner of all these cameras and many other interesting models of the pioneer days, photo by Alfred Chouinard, 666

ALWAYS ON THE JOB

While Ambassador Dawes, he of the upside-down pipe, and his colleagues are planning a World's Fair at Chicago for 1933, President David scooped them with his motion picture exhibit preceding the last regular meeting of Six-Sixty-Six on the evening of November fourth.

Several hundred guests and members of the local reveled in a maze of motion picture machinery that had been dragged from the vaults of the Essanay Manufacturing Company and set up in the natural vision projecting room for display.

Two reels of Spoor's wide, or natural vision film was projected on the forty-eight foot screen. The 65 mm film followed a showing of a short scenic on 35 mm and the change from the small to the large film brought exclamations of astonishment from the audience. George K. Spoor, whose vision of the future and years of experiment have brought the wide film to the front, does not claim that it is truly stereoscopic though it was the opinion of everyone present that he has brought "third dimension" to the screen, if only psychologically.

Following the exhibition of the large film the cameramen were turned loose on cameras, perforators, projectors, and printers of an age as old or older than most of those present. There was the first projection machine ever built by Spoor. Mr. Spoor demonstrated this in person and seemed to enjoy the event as much as his audience.

John C. Richardson fondled a hand-cranked perforator that he had operated as a boy. President David ardently bragged about the Urban printer on which he had turned out miles of film for the General Film program of yester year.

But the real kick came with a demonstration of the old cameras. An old beater-movement Gaumont attracted much attention, though a "Young Trunk" stuck on a tripod was the hit of the evening when it was learned that it was none other than the first Bell & Howell camera. The first metal Bell & Howell stood next to it. Then came the first Natural Vision Camera and beside it the latest model from the Spoor shops.

The members were dragged away from the exhibit for a regular meeting, which was short and sweet because of the late hour and the greatest tribute that was paid the promoters of the exhibit was the return of the entire membership to the Essanay projection room for another look.

Brothers Oscar Ahbe, William Ahbe, Albert Steis, Marvin Spoor and President David received the highest praise for their work in putting on the show.

The meeting of the Local passed a resolution of thanks to George K. Spoor for his generous and whole-hearted co-operation with the committee in charge.

The exhibit is part of the program of Local Six-Sixty-Six to bring their members in touch with every phase of the camera motion picture work, particularly the latest developments. The next meeting will be preceded by an exposition of sound.

SIX-SIXTY-SIX

JUST A FEW FACTS

It is not uncommon for cameramen to boast a little. We've heard that immortal trio—Hurd, Reeves and Klaffki—from 659 boost California. But the members of 666 have shown unusual restraint, and, while we have the best Natural Vision men, the best sound men, the best news men, the best industrial men and the best production men—we don't boast about it. Facts are facts.

Then along comes Bill Scanlon with the best war novel ever written and we don't even boast about having the best writer of all times among us. Not us—we don't boast. But we thought it might be a good idea to let you know that the secret is out despite our modesty.

Speaking of "GOD HAVE MERCY ON US!" by William T. Scanlon, a member of 666—Vrest Orton, in The Book Review, has to say:

. . . It must be ranked as the truest and most vital piece of American fiction to come out of the war . . . Scanlon tells truths—American soldiers robbing the dead, fighting and killing one another . . . hate and rivalry between companies, regiments and divisions . . . a picture terrible in its reality . . . horrible in its import . . .

Isabelle Wentworth Lawrence in a full-page review in the Boston Transcript, says:

"Here's a war novel that will raise your hair . . . There is not a cootie in three hundred and thirty-seven pages, though once, on a midnight battlefield, we see, by the sudden flare of a Verey light, what the animal kingdom can do with death . . ."

Robert John Bayer in the Chicago Evening Post gives Bill the lead place. He says:

"It is the best war book I have read . . . Mr. Scanlon writes in a manner faintly reminiscent of Herr Remarque (Author of "All Quiet On the Western Front) but—and this may sound like literary heresy—he writes a much better book."

Bill is now engaged in summing up offers for the movie rights and getting writer's cramp autobiographing copies of the book, which is now slated among the six best sellers.

As we said before we had every intention of keeping the great accomplishments of our members secret, but now that it is out we might as well tell you that we are going to have Bill rewrite Shakespeare so that it will be readable and popular.

SIX-SIXTY-SIX

A YELP FOR HELP

In the last issue of The International Photographer on page forty-three appeared an advertisement of this local for reporters for this page. To date the secretary has not received a line. Unleash the typewriters. Slip us the dirt. Send it to Eugene Cour.

Jack Flanagan has recovered from his tussel with an appendix and sneaked out to the land of Art Reeves and Howard Hurd without so much as a tumble to the toiling secretary.

We haven't heard from Ralph Lembeck in ever so long.

This column would like to mention St. Paul. Isn't there anything good that can be said of the Northwest?

Brother Jacobs, of 665, said hello passing through.

Two detectives stopped an ex-con. in the midst of film row and then the fun began. Two coppers and one ex-con. wounded after a barrage of shots. All the cameramen were polishing lenses at the time and were unable to get set up to get in on the fight. Those pesky lenses will get dirty.

Not a sound out of the noise-picklers so far this month.



IT'S A HABIT WITH KLING

For the fifth time in a year and a half Clifton L. Kling has been awarded Screenland's prize for the best production still of the month. His last award was for a shot in Paramount's "Half Way to Heaven" featuring Jean Arthur and Charles Rogers.

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Laboratory Technicians

BY

CARL KOUNTZ, *Business Representative 683*

It is with genuine pleasure that the Laboratory Technicians organization, Local 683, I. A. T. S. E. acknowledges the kindness and courtesy of the International Photographers. Their co-operation and enthusiasm in assisting in the organizing of the Laboratory Technicians has been a great boost, and we wish to thank each and every one for the splendid aid received.



CARL KOUNTZ

Co-operation has come from all labor organizations to help build up the Laboratory Technicians and affiliations are being made with the different federations of labor. It can be truthfully said that the Laboratory Technicians are practically 85 per cent organized.

The organization is young, but its functioning, under the different executives is remarkable. One would think that the L. I. is as old as its sister organization.

The executives of the Laboratory Technicians are men and women who have spent many years in the profession of developing film. They understand the profession in which they have spent half of their lives, and know the difficulties to which they and their fellow workers are subject and they feel that their future is bright.

The slogan of the members is "Keep in Good Standing," because, if one is in good standing he or she is active in the organization. Being active in the organization is co-operation.

To keep in good standing members must pay dues promptly on the designated date of the month, and likewise, if paying by the quarter. Members who fail to pay their union dues on the specified dates, automatically lose their privileges until restored to good standing.

There are many important matters facing the members of the organization, and members failing to pay their dues have no voice or vote in the disposition of the matters pending for discussion, for only paid-up members are qualified to attend the meetings.

Local 683 maintains headquarters at 6472 Santa Monica boulevard. Meetings are held on the first Sunday of each month.

—o—

MR. CARL GREGORY

THE INTERNATIONAL PHOTOGRAPHER learns from visiting eastern brothers that Brother Carl Gregory of Local 644 has been mentioned for the position of editor of the new S. M. P. E. JOURNAL and if THE INTERNATIONAL PHOTOGRAPHER may be permitted an opinion in the matter no better man could be found either east or west. This journal, therefore, as well as its publishers, Local 659, I. A. T. S. E. and M. P. M. O. goes on record as heartily endorsing Mr. Gregory for the position and pledges support and co-operation to him in case this honor is conferred upon him by the S. M. P. E.

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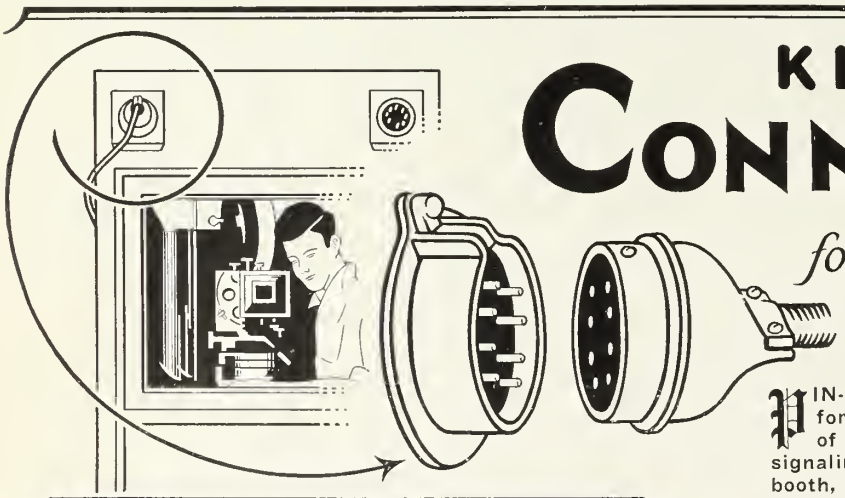
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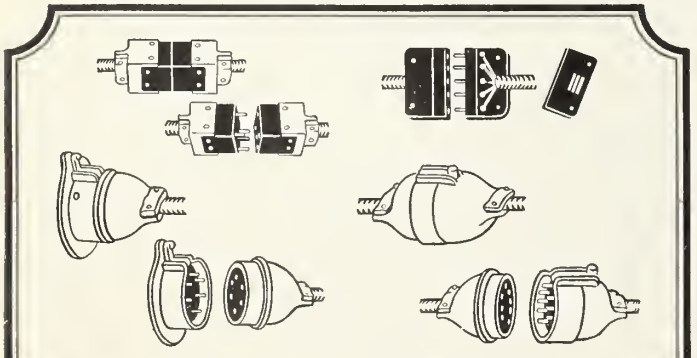
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Write for Bulletin No. 102

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CHAS. P. BOYLE	S. C. MANATT
WM. H. TUERS	R. B. HOOPER
FAXON M. DEAN	SOL POLITO
IRA MORGAN	PAUL HILL

TO ALL LOCAL UNIONS OF THE CITY OF LOS ANGELES AND VICINITY

Greetings—

For the last two years the Cleaners, Dyers and Pressers Local 17,954 of Los Angeles has gone through the worst struggles of any labor organization. Lost strikes, lockouts and many other fights have we gone through. Very little, if any have we appealed to organized labor for moral or financial support. At the present we are starting a campaign for the moral support of all organized labor and its sympathizers.

We are placing union cards (a sample of which is enclosed in this letter) in all tailor shops and cleaning stores.

Fellow union men and women, no doubt you all clean your suits, overcoats or dresses every now and then. All we ask you to do for us is the following: When bringing in a garment demand this card in every cleaning store or when calling a plant on the telephone to pick up clothes, first ask if the plant is a union shop and demand from the driver who calls on you a union card. In doing this you will greatly help us to organize the unorganized cleaning plants.

Eventually we may be forced to place some cleaning plants on the unfair list.

Hoping you will take this communication into consideration, we are thanking you in advance,

Yours sincerely and fraternally,

H. S. GRAHAM, *President.*
Cleaners, Dyers and Pressers
Local 17,954.

Affiliated with the American Federation of Labor.

BENIGHTED RUSSIA

Arthur Brisbane in his column, "Today," concisely presents Russia's wonderful working conditions for those who labor for their daily bread. Russia has become the model after which labor organizations of the world shape their ideals.

Mr. Brisbane says:

Russia has changed her year without loss of time and in a way to amaze American labor unions, gloating over the bare beginnings of a five-day working week.

In Russia labor works four days then rests one day. There are no Sundays, no religious or other holidays, except four official Bolshevist celebrations.

But every fifth day is a rest day.

In seventy days the American worker has ten Sundays off. In seventy days the Russian worker will have fourteen days of rest. And Russians say they will beat us in industrial production.

Their theory is that a man well rested produces more. And while men rest one day, after four days' work Russia proposes to keep machines running night and day, all year round, with three eight-hour shifts of men.

"No rest for machinery, except for repairs. Plenty of rest for men" is the Russian plan.

—o—

CAMERAMEN EAT

We note an ever-increasing number of cameramen choose Dave Unger's cafe, at 1235 North Vine street, for their daily meals. Probably no other local cafe can boast a larger personnel of camera workers among its regular customers.

Dave Unger has been a Union man for many years. So far as possible he carries in stock only union-made foodstuffs. Recently he discontinued to serve a popular brand of beer because the manufacturers had refused to hire Union brewers.

Dave's cafe is known throughout the the industry for tasty, well cooked food, and is famous for its great stacks of Russian rye bread served with every meal.

—o—

TOREADOR!

MEXICO CITY, ——Organized labor has found its way into the Mexican bull ring.

The banderillos and the picadors, who play the minor roles in the national sport, have formed a union, with the object of keeping out foreign competition and setting a standard wage scale.

—o—

MEMBERS TAKE NOTICE

When a high speed Mitchell or Bell & Howell Camera is furnished at the regular price, it is optional as to whether two 1000 foot magazines or four 400 foot magazines be furnished at the same price.

WHO'S YOUR MILKMAN



Emblem of Teamsters, Chauffeurs, Stablemen and Helpers of America

Has he a Union button for this month with the above emblem?
Don't forget that the Milk Drivers of Los Angeles have an organization. Truck Driver's Union, Local No. 208, has jurisdiction over Los Angeles Milk Drivers. Insist that your milkman show a paid up card before you patronize his dairy.

Look for This Label

DEMAND THE LABEL

Out of strife and struggle came the Union Label. It is a sacred gift to us from those early trades unionists who fought fearlessly and unceasingly that the workers who came after them might enter the ranks of labor better equipped for future victories. It is a priceless gift of power and helpfulness.



GIVE THESE BOYS A HAND

Prominent and old-time members of Bill Posters' Union No. 32 of Los Angeles are engaged in the parking station business, namely: C. C. ("Doc") Garnett, and Charlie Kobletz. Their locations are 5414 Melrose avenue, opposite Lasky studios, and at the corner of Windsor and Marathon, opposite KNX.

These boys have recently leased the lots and entered into this business, with the idea of rendering service to the men and women who park in that vicinity. It would be very befitting if Union men and women who park in that vicinity would give their patronage to two good Union men. Local 32 considers Bros. Garnett and Kobletz two very loyal members, they having been connected with the affairs of the Bill Posters' Unions throuhgout the United States and Canada for many years. Ask for the Union card from these two boys.

Out of Focus



DO YOU KNOW

That if you want to "Ask the man who owns one" you should ask me.

That it is a great feeling to finish a picture and not have to look for another job.

That Jack Landrigan can shoot stills as well as operate a movie camera.

That our magazine gets larger each issue.

That this may be the means of reducing your dues sometime.

That you have heard this before.

That Si Snyder, our editor, has been very ill, but that he gets the work done just the same.

That Ira Hoke is responsible for the issuing of a magazine by the Local.

That our new quarters are as fine as any local I have ever seen and we should be very proud of them.

That Marcel Grand's name does not have to be Speed Hall in order to get his name in the column, and that I hope it's a boy.

That Jax Rose wrote the article about the sight-o-graaf in a recent issue.

That Jimmie Palmer has finished his work at the office as assistant to Howard Hurd and is now in the field with a swell Mitchell Camera owned by me. (That is it will be some day.)

That Paul Perry and I agreed without any argument (for the first time in 25 years), that Ray June was a swell fellow.

That margins are easily erased and it is better to buy bonds than to "Bye Bye" stocks.

That Harry Merland is known as "Gallup," "Factory" and "Gabe" and has a framed telegram from the War department saying he is dead. You can't fool the War department.

That "John" Henry Kruse sold over 50 subscriptions to our magazine on one set. The subscribers being electricians, prop men, grips, actors (3 years to Al Rogell), make-up men, etc., etc. and three to colored boys from Central avenue. Almost sold one to me.

* * *

SOCIETY NOTES

The Jean Smiths entertained last week end at their beach home, for which the Bert Lynchs pay rent, and opened a can of anchovies.

Maurice Kains was seen on the boulevard last week in his new Rolls. Green and red seem to be the predominating colors.

Harry Hallenberger and his wife were at the opening of O'Tools Muscovite Theater last week. Mrs. Hallenberger wore a lovely creation of pink and Harry wore a pair of cuffs and wrist watch.

Roy Tripp was at the opening and someone bumped into him. He said: "Ah Ooooo."

Ira Hoke spent the week end at Punching Beach making stills of butterflies.

Friend Baker says the traffic is :$&œ$"**$ between his summer home at Culver City and his beach place on Seward street.

Archibald J. Stout invited several of the boys from Lasky's for an outing on his yacht last week. After cleaning and painting it was too late to put out, but the ride to the harbor was enjoyed by all.

* * *

EPITAPH

Here lies a filter no longer in use,
Rendered great service, received much abuse.
(If I only had something to put in this line)
The name of the filter is C forty nine.

* * *

LETTERS RECEIVED

Dear Photografters—I have been working for some time as a portrayer of human interest via the screen. I generally do this sort of work for the cost of my film and furnish the camera free. I would like to join your organization so I can get the new wage scale. What would you advise?

Answer—See the Membership committee. A nice bunch of boys.

Mr. Just a Little Bit Out—I see where Speed Hall had a party at his house. I have a nice house and have dandy parties. Can I become an asst.?

Answer—See the Membership committee. A nice bunch of boys.

Dear Otto—I am working in the Rushem and Pullem Lab. I would like to become an asst. What would you suggest?

Answer—Be sure that you have a card in the Lab. Workers local. I will help you later.

Int. Photog. Last Page Det.—I heard you calling Mrs. Lincoln, Linky. How come?

Answer—Don't forget. I'm the TREASURER.

Dear Mr. Out of Focus—What is a diminishing glass and what is it used for?

Answer—A whisky glass is a diminishing glass and it is used for measuring gin in hi-balls.

* * *

Slogan at a wayside food shop—We sell near beer here—because there is no real beer near here.

* * *

CLEAN-UP WEEK

Next week will be clean-up week in M. P. Industry.

All assistants will clean the cameras as well as their necks.

Second cameramen will clean up small loans they owe the assistants.

First cameramen will clean up payments on the old homesteads and everyone will be happy.

* * *

Sound Engineer—That last word sounded like boloney.

Director—Your crazy. The word was Blarney; it will cut O.K.

Sound Engineer—No matter how you cut it, it will still be boloney.

* * *

Emmet Schoenbaum says the still men do not get a break in the magazine. What about the cover? And, by the way, Emmett, you might take a look at the art insert in this issue.

* * *

Fuzzy Department—I see in the last issue that they had a baseball game in Chicago, and that the 666 boys covered this with film and sound. Who was playing?

Answer—Just a friendly game between the Yellow and Checker Taxicab Companies.

—o—

BORN IN DECEMBER

The gentlemen named below were born late in the year. It was the last call, but the important fact is that they really were born. Many good things have happened in December—Christmas for instance—and all these boys take pride in assuring their friends that they were Christmas gifts—you know—like cigars, neckties and things like that.

People born in December have the gift of prophecy—so you better look out when a December comes along. He can tell your future, if any. The December birthstone is rock candy. Here they come:

Dave Abel, Bert Anderson, Don Anderson, Fred Archer, Jacob Badaracco, George Beckman, Harry Blanc, Elwood Bredell, Milton Bridenbecker, Norbert Brodine, Frederic Colburn Clarke, Max Cohen, William H. Daniels, Thomas L. Dowling, Linwood Dunn, Mack Elliott, Willard Emerick, Jockey Feindel, Mervyn Freeman, Richard Fryer, James Gordon, Kenneth Green, Bert Haines, John L. Herrmann, Stanley Horsley, Aron Hower, William C. Hyer, Louis E. Jennings, Hans Koenekamp, Reginald Lyons, Joe MacDonald, Hugh McClung, Harry Marble, Arthur Marion, Robert G. Martin, Kyne Meade, Virgil E. Miller, Victor Milner, William Nobles, Howard Oswald, Ernest Palmer, Paul Perry, Len Powers, Thomas Riddell, Oren W. Roberts, Abe Scholtz, Bill Sickner, Alfred E. Smalley, Dave Smith, Edward Snyder, George Stevens, J. O. Taylor, Leo Tover, Tom Tutweiler, Teddy Weisbart, Rex Wimpy, Ray Wise.

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EVERY PRODUCTION

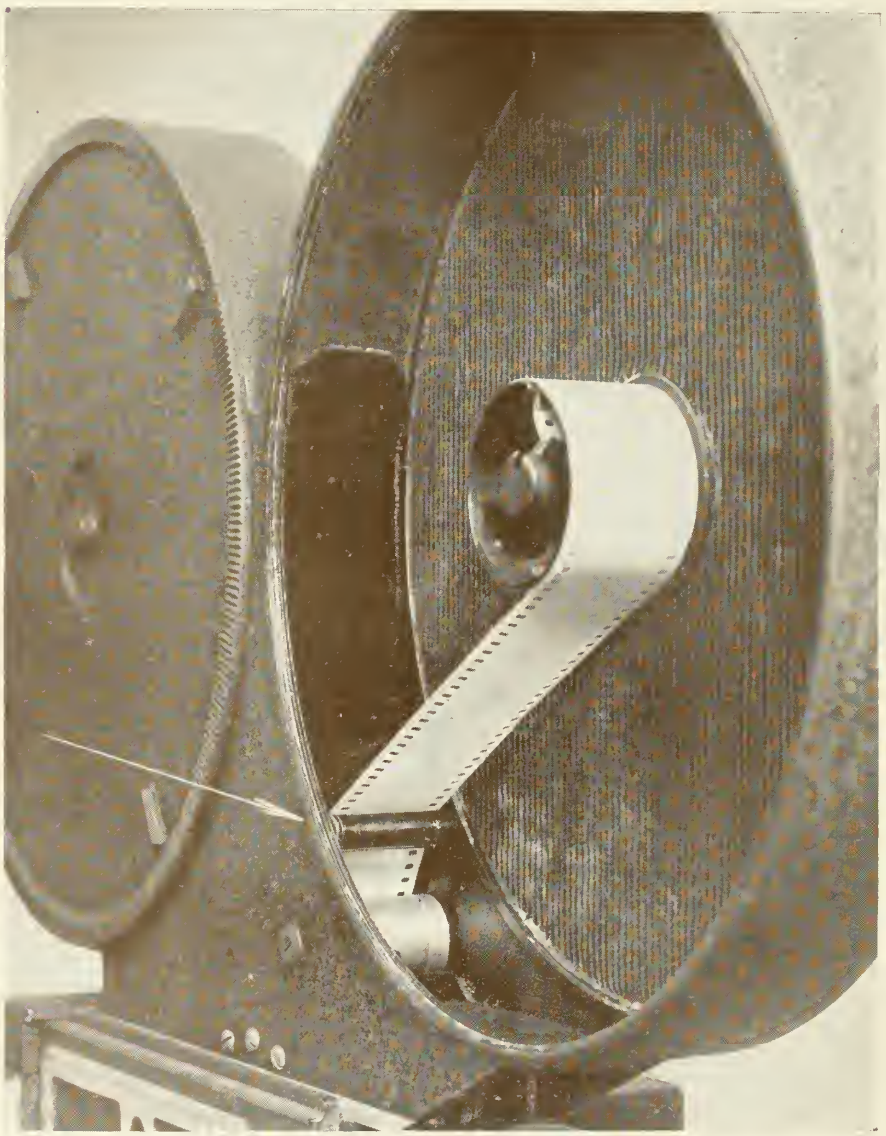
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